

# THE CLASSICAL JOURNAL

PUBLISHED UNDER THE AUSPICES OF THE  
CLASSICAL ASSOCIATION OF THE MIDDLE WEST  
AND SOUTH WITH THE CO-OPERATION OF THE  
CLASSICAL ASSOCIATION OF NEW ENGLAND

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VOLUME XI  
1915-16



THE UNIVERSITY OF CHICAGO PRESS  
CHICAGO, ILLINOIS



Published

October, November, December, 1915

January, February, March, April, May, June, 1916

Composed and Printed By  
The University of Chicago Press  
Chicago, Illinois, U.S.A.

# The Classical Journal

PUBLISHED BY THE CLASSICAL ASSOCIATION OF THE MIDDLE WEST AND SOUTH  
WITH THE CO-OPERATION OF THE CLASSICAL ASSOCIATION OF NEW ENGLAND

Volume XI

OCTOBER 1915

Number 1

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THE UNIVERSITY OF CHICAGO PRESS

CHICAGO, ILLINOIS, U.S.A.

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THE CAMBRIDGE UNIVERSITY PRESS, LONDON AND EDINBURGH

KARL W. HIERSEMANN, LEIPZIG

THE MARUZEN-KABUSHIKI-KAISHA, TOKYO, OSAKA, KYOTO

# THE CLASSICAL JOURNAL

Published by the Classical Association of the Middle West and South, with the co-operation  
of the Classical Association of New England, and devoted to the  
interests of classical teachers in schools and colleges

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For the British Empire: THE CAMBRIDGE UNIVERSITY PRESS, Fetter Lane, London, E.C. Yearly subscriptions including postage, 7s. 2d. each; single copies, including postage, 1s. 2d. each.

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# THE CLASSICAL JOURNAL

VOLUME XI

OCTOBER 1915

NUMBER 1

## Editorial

### THE SCHOOL'S OPPORTUNITY

It is well known that Harvard, Yale, and Princeton have now definitely given up their individual examinations and that hereafter all June examinations will be held under the auspices of the College Entrance Examination Board. Harvard will, probably for a short time, read her own answer-books under the "new plan," but Yale and Princeton have fully intrusted both old- and new-plan examinations to the Board. However, the *Harvard Alumni Bulletin* has said, "It is regarded as highly important that Harvard should adopt the same course."

This means that at last, though actually within a very short time, the hopes of the founders of the College Entrance Examination Board have been realized. Comparatively few teachers today really know much about the difficulties under which we labored in the consulship of Plancus, and a complete description of them would make an article too long for the *Journal* to print. In the first place, the college requirements were almost as varied as the colleges themselves. Some colleges indeed used to boast that they were teaching the various subjects by means of their examination papers, that is, that they were teaching the teachers. Perhaps they were, but the teachers did not appreciate the process! The result of this was that a few schools adopted the plan of dividing their students into groups, at least during the last term of Senior year. This was, of course, not teaching a subject but cramming the pupils to meet the idiosyncrasies of individual colleges, and

only the best-equipped schools could follow the practice. It should also be remarked in passing that the dawning of a happier era was beginning to appear even before the Board came into existence. Then—and this was the most exasperating circumstance from the school's point of view—the colleges naturally read their own papers and there was no appeal from Caesar's judgment. It was a "star chamber" performance in which the schools had no voice. Without doubt the readers tried to be absolutely just in their grading of answer-books, but such a consummation, though devoutly to be wished, was impossible under the circumstances. In most cases a whole set of books was intrusted to one person. He did his work without conference, and there was no revision at the hands of others. The present writer performed this task for a college many years ago and he knows whereof he speaks. He is sure that he made the greatest effort to deal justly with the candidates, with the schools, and with the college, but even then he was old enough to know that few persons can truthfully say, "I never yet made one mistake; I'd like to for variety's sake."

The College Entrance Examination Board has at length brought about a complete reform of all these evils, and I should like now to refer briefly to some of the many ways by which the Board aims to secure fairness to all concerned, but particularly to the schools. At present the Board consists of the representatives of thirty colleges and of ten representatives of the secondary schools. According to the constitution of the Board the representation of the secondary schools may be considerably increased, if there is ever a demand for it. Moreover, the schools are adequately represented on every one of the Board's committees. The Committee of Review is one of the Board's most important committees. This consists "of seven members, three of whom shall be representatives of secondary schools. This Committee shall consider all criticisms and suggestions that may be made to the Board in regard to its requirements, and shall make definite recommendations in regard to any modification of these requirements that may, from time to time, seem desirable." The Committee on Examination Ratings consists of the same number of persons, divided in the same way. "This Committee shall consider all criticisms and suggestions that

may be made to the Board in regard to the reading and marking of examination books, and shall make definite recommendations to the Board as to changes in the regulations governing the reading that may, from time to time, seem desirable." For each subject there are three examiners, whose duty it is to make out the examination papers. They are normally appointed not later than August of each academic year, and one of them must be a secondary-school teacher. In any given subject the papers to be prepared are divided among the three examiners. As soon as these have been drafted, copies are sent to each of the other two examiners for revision, and the process of getting the examiners to agree upon all the details of all the papers in any particular subject is generally a laborious one. It entails much correspondence and at least one prolonged conference. This work must all be done by December. In February the Committee on Revision, which includes all the chief examiners, meets to consider each individual detail of each paper in all the subjects, the various papers having been submitted to the members before the meeting. It must be said with emphasis that this meeting is not a perfunctory performance! Every question is carefully weighed with reference to its import and phraseology. If found open to criticism, the question is appropriately modified. Sometimes it is rejected altogether and a new one may be substituted. Of course not every member of the committee can be an authority on each of the subjects, but it is certain that every member knows *something* about all of them and *is* an authority on at least one.

In regard to the reading of the papers I have spoken before, but possibly I may be allowed to disregard the immortal precedent set by our greatest poet and repeat myself. In what follows I shall speak of Latin only, but the Board has a uniform system for the reading of all its answer-books, so that what I have to say about Latin applies in fact to all subjects.

In June, 1915, there were 39 Latin readers, of whom 15 represented colleges and 24 represented secondary schools. Of these 39 readers ten were appointed this year for the first time, and of the ten new readers two represented colleges and eight represented secondary schools. The unusual increase in the number of readers

was due, not simply to the fact that we had more answer-books to read than ever before, but also to the fact that it is certain that next year the number of candidates will be nearly doubled, owing to the recent action of Harvard, Yale, and Princeton. In June, 1916, there will be about fifty Latin readers, and it was not considered desirable to appoint so many new readers at one time.

The chief reader, except for one year when he served as secretary of the Board in Professor Fiske's absence, has always been Professor Nelson G. McCrea, of Columbia University, a man of the soundest judgment and one to whom Vergil's words, *iustissimus unus . . . et servantissimus aequi*, most surely apply. Any candidate, school, or college may be sure of justice at his hands and at the hands of the readers over whom he so admirably presides.

The Latin readers this year were divided as evenly as possible into four smaller groups, and then the various papers were apportioned among them. At first each of these groups devotes much time every year to a consideration of the question paper. The credits assigned to each question are regularly suggested by the examiners, but many changes in these are often agreed upon by the chief reader and the individual groups. Then eight or ten answer-books are graded by all the readers who are to read this particular set of books. No mark of any kind is placed on any book, in order that each reader's opinion may be formed independently. After this is done, these books are read aloud and fully discussed in regard to every point, the chief reader presiding at the discussion. To mark an answer that is perfectly right or absolutely wrong is, of course, easy. To determine how much credit to give an imperfect answer sometimes requires long discussion. The Board, however, spares no expense in securing justice in this matter, as well as in all others. The minor group to which the writer belonged this year devoted a little more than one day's work to the discussion of Latin 4—Cicero, and this was an easier problem than some of the papers. No individual college could do its work as carefully as this, for the help given by the secondary-school teachers is invaluable.

When we have come to an agreement on all these details, the actual reading begins. Of this I need only say that every book at

first rated 65, or lower, must be read by at least one other reader and that the final mark must be agreed upon. Moreover, all books rated by the two readers at 45-49, or at 55-59, are read by other readers to see if they should not be rated at 50 or at 60, respectively. Professor McCrea always does as much of this re-reading as possible.

It seems to me that this is enough to show the extreme care with which the Board tries to secure fairness. And right here comes the school's opportunity. Since the schools have been given so much power in the matter of college admission, they should, and undoubtedly will, see to it that they assume this responsibility in the proper spirit and that they do not abuse their privileges in any way. At present the relations of the schools and colleges seem to be perfectly amicable. They ought to remain so, and this I am sure is the earnest desire of everyone. In times past the schools had formulated many just complaints against the colleges. A great many of these grounds for complaint have already been removed. If further changes are still desired by the schools, they have only to agree upon what they want and then prove the justice of their claims. When this is done, they may be sure that their demands will be granted in the course of a year, or two at the most. To illustrate by an extreme case: if the schools can prove that a course in millinery, or in carpentry, is of equal value from an educational point of view with a four years' course in Latin, the colleges would allow the substitution of either of these for the present requirement of Latin! Since a distinguished teacher has proved the inestimable value of Latin even in a commercial school, it is not likely that anyone will ever care to maintain this proposition. There are also other reasons for this expectation!

One small matter suggested by the preceding paragraph I should like to mention. The writer has for some years been astonished to find how prevalent is the system of "doping" examinations. There are many teachers who never read, or who read only hastily, certain passages of Vergil, or of Cicero, for example the first or the last portions of the various books and orations, because, they say, the examiners will never set these passages. Years ago, before the introduction of the present minimum requirements,



there may have been a virtual agreement on the part of examiners to avoid selecting these passages for examination, but now there is no reason why the candidate should not study *intensively* every line of the two orations of Cicero and of the three books of Vergil.

In the Latin 4—Cicero examination last June we seemed to find possible evidence of widespread “doping.” The passage for prepared translation came from the last chapter of the Archias oration, a fairly difficult passage, but only one of many in this speech. Moreover, the number of pages required for this part of the examination is extremely small and every word of the two orations should have been mastered. The results show that the candidates generally failed on this translation. Many who received almost no credit on this part of the paper did well on the questions and on the sight translation. This proves that they did know some Latin and were well prepared to translate the middle portion of the Archias. In fact during nine years’ service as a reader I have never seen the questions on any paper answered so well. Of course some nonsense did appear in a few answer-books even this year. For instance, in one form or another I found this answer four or five times: “The advantage of writing in Greek was that nobody could read it and therefore nobody would know how bad a poet Archias was.” In this connection I am glad to say that we were asked last June to copy some of the really excellent translations and answers given by the candidates. Professor McCrea will deal with these in his important paper to be delivered at the next annual meeting of the Classical Association of New England and published in the *Journal*.

A few professional coaches, who are eager only to get their pupils into college, may still continue to follow their custom of making a study of examination papers and of deciding that this or that passage will never be given because it never has been given. The plan will surely work at least nine times out of ten, but self-respecting teachers will never stoop to such a course. It is the least important part of a teacher’s duty to get his pupils into college. If the students are of average ability and have been thoroughly taught, they *will* pass their college examinations.

M. N. W.

## METHODS OF TEACHING LATIN

By H. C. NUTTING  
University of California

Until quite recently the conventional methods of teaching Latin have been little affected by the increasing storm of criticism emanating from sources friendly and unfriendly. But at the present time signs are not wanting that we are on the verge of a new régime; and as we pass from the old to the new it is highly important that no false step be taken. It is in the hope of shedding a little light on the way that the following observations are offered.

In the search for a cure for the evils of the present system of instruction it is quite natural that the thoughts of many should turn to the direct method of teaching Latin. In England this movement has made some headway; and although American teachers have had little opportunity to see the method in actual operation, still it has been possible to gather some general impressions about it from verbal and printed reports; and now the numerous textbooks issued at the Oxford University Press and elsewhere bring us almost into the classroom, so that anyone willing to take the trouble can inform himself with considerable accuracy as to the strong and weak points of the system as thus far developed.<sup>1</sup>

In *Praeceptor* Mr. Andrew has mapped out for teachers a course of instruction in the use of the direct method. In many respects this book is helpful, but it is marred by the interspersing of much

<sup>1</sup> The series issued at the Oxford University Press, under the general editorship of Dr. Rouse and Mr. S. O. Andrew, already includes the following: *Primus Annus*, by W. L. Paine and C. L. Mainwaring; *Decem Fabulae*, by W. L. Paine, C. L. Mainwaring, and E. Ryle; *Puer Romanus*, by R. B. Appleton and W. H. S. Jones; *Praeceptor*, by S. O. Andrew; *P. Ovidi Nasonis Elegiaca*, by L. R. Strangeways.

G. Bell & Sons have published the following: *Pons Tironum*, by R. B. Appleton and W. H. S. Jones; *Olim*, by Miss Effie Ryle. *Cothurnulus*, by E. V. Arnold, is a text on somewhat the same order.

There is one American text, *Beginners' Latin*, by E. C. Chickering and H. Hoadley, Scribner, New York.

ill-judged controversial matter. Without Mr. Andrew's strictures we should be ready enough to believe that there are serious defects in the conventional system of Latin instruction in England; too often, no doubt, the dull student can be found who memorizes rules and lists of words in parrot fashion, without knowing much about them or about Latin; and some of the pupils may perhaps attack a short English sentence to be turned into Latin by first "setting down" the two words they happen to know, thereafter looking up each of the other words with painful deliberation as to declension and conjugation, and finally evolving a sort of mosaic out of these heterogeneous materials. But it is certainly unfair to imply that this procedure is typical of the work in all English schools; and it is still more unwarranted to assume that the infelicities inherent in the old system can be ameliorated only by the adoption of the direct method of teaching Latin.<sup>1</sup>

That the advocates of new methods should believe in them thoroughly and to the exclusion of all others is, of course, natural; but we of the rank and file cannot afford to lose sight of the fact that the merits of a cause are not always to be gauged by the enthusiasm of its advocates. Mr. W. H. Maxwell, after long years of experience as a public-school superintendent, contributes to the *Educational Review*,<sup>2</sup> an interesting article in which he sounds this warning very emphatically. Among the many innovations which he has seen come and go, he singles out for extended comment an experiment in the matter of teaching penmanship. At a meeting of school superintendents held some twenty-five years ago an ardent plea was made for the adoption of vertical writing. Of the speaker who urged this adoption Mr. Maxwell says:

I well remember the dramatic action with which he seated himself at a small table on the platform, and illustrated, by clever contortions of his body, the unwholesome postures too generally assumed by school children in producing slant penmanship, and the graceful, erect posture which, he claimed, would of necessity follow the universal adoption of vertical penmanship. He made his audience merry over the wrong postures, which varied from the style

<sup>1</sup> At one point (p. 47) Mr. Andrew himself seems for a moment to become conscious that he is laying himself open to criticism by disparaging so bitterly the work of other teachers.

<sup>2</sup> February, 1914, pp. 165 ff.

in which Mr. Samuel Weller, with the aid of a protruding and gyrating tongue, laboriously indited his first love letter, to the rigid posture which many school-masters then made their pupils adopt.

A profound impression was made upon the superintendents by this performance, and a general adoption of vertical writing shortly ensued. The sequel Mr. Maxwell describes as follows:

What were the results? Instead of writing vertical penmanship, our pupils, for the most part, acquired a slow, stiff, backhand penmanship, unlovely to the eye, and therefore illegible, and they assumed just as unhygienic postures as before. . . . Our graduates were not infrequently obliged to go to a commercial school to unlearn what they had been taught in the public schools, and to acquire rapid and legible writing.

In a consideration, therefore, of the advisability of the adoption of the direct method of teaching Latin, the enthusiastic advocacy of a few should have little weight, unless it is backed by substantial argument and by conspicuous success in actual practice.

From the point of view of constructive argument it must be confessed that Mr. Andrew's book makes but a poor showing—much poorer, it would seem, than the facts themselves might warrant. His introductory argument (chap. i, pp. 8 ff.) proceeds as follows: If we were to ask a plain man what is the object of learning a language, he would almost certainly say "to speak it." The plain man would be right, (1) because language is like other arts, as Aristotle observed long ago, in the fact that its product is the same in kind as the separate acts by which the learner attains his end; and (2) because it is paradoxical to suppose that it is possible for a man to read with pleasure or to write effectively a language that he cannot speak with a sense of familiarity.

It is a small matter to show the flimsy character of this reasoning. In the first place, the "plain man" is the last person in the world to consult about methods of teaching Latin; let him but once know that you are talking about a language no longer spoken by any nation, and the very pronunciation of which is in some points a matter of dispute, and the plain man will be likely to aver that it would be a waste of time even to learn to *read* such a language, to say nothing of the folly of attempting to speak it. In the second place, the appeal to Aristotle simply brings a great name into the discussion without in any way supporting the argument; for what

Aristotle says would apply equally well to the acquisition of skill in either reading, writing, or speaking; it does not at all appraise the relative merits of these exercises. Finally, few readers will need to go outside the range of their own experience and observation to bury fathoms deep the fallacy that none but those who speak Latin with a sense of familiarity can read it with appreciation and write it with precision.

Another striking instance of the weakness of Mr. Andrew's constructive argument is found in chap. ix, pp. 77 ff. Speaking of the possibility of injuring a student's English style through testing his understanding of Latin idioms by requiring a literal rendering into English, he says:

Let us see how the test of translation works in dealing with a simple expression like *me iudice*; if the learner translates "in my judgment," this by itself (as any teacher will point out) does not ensure that he understands what he is doing—he may be wrong in all sorts of ways; while if he translates "I being judge," he shows indeed that he understands, but at what a cost! Is any teacher content that boys shall be laboriously trained to think and speak and write this sort of crib-English?

The one escape from this difficulty Mr. Andrew finds in the direct method, with the exercise conducted wholly in Latin. Thus he adds:

A boy can show that he understands *me iudice*, without resorting to English at all, by a simple explanation like *ut ego iudico* or *mea sententia*, and by answering (if it is really necessary) the question *quae constructio est haec?*

It does not seem to occur to Mr. Andrew that such periphrases as *ut ego iudico* and *mea sententia* throw no more light upon the student's understanding of the syntax of *me iudice* than does the English rendering "in my judgment"; and as for the final expedient, surely the English question "What construction is this?" would serve the purpose quite as well as a question in Latin.<sup>1</sup>

Another specimen of very peculiar logic appears in chap. i, p. 14. With reference to practice in writing Latin, Mr. Andrew says:

It is undoubtedly true that while speech makes a ready man, writing makes an exact man. Let it be said, therefore, that the learner will write continually,

<sup>1</sup> As a matter of fact the danger that "translation English" will injure a pupil's normal English style seems much exaggerated. This point is considered at some length in the *Classical Journal*, V, No. 4 (February, 1910), 165 ff.



but his written work, at least in the early stages, will never go in advance of his spoken work; where he is able to speak exactly, it will be found that he is able to write exactly.

Such loose and confused composition as this surely invites attack; indeed, should the critic be inclined to levity, he might even be unkind enough to declare himself confirmed in the view sometimes expressed that the direct method is a poor school for logic.<sup>1</sup>

The strength or weakness of the argument advanced by some one advocate of the use of the direct method does not, of course, settle finally the question of the merits of that system. Substantial success in actual practice is the ultimate test. On the basis of reports received, we cannot doubt that, in some English schools, Latin is being taught by the direct method with very satisfactory results; and it may well be that many other schools in England will seek and find a solution of their difficulties in the adoption of that system of instruction. In America the need of reform in Latin teaching surely is quite as great as in England; but the problem here is somewhat different; and no teacher should attempt to introduce the use of the direct method without first counting the cost. In this connection four points call for especially careful consideration.

1. *Difficulty of the method.*—To teachers who chafe a little under the exact requirements of the conventional style of teaching Latin it might readily seem that an easy and attractive way of escape is to be found in the apparently flexible and easy-going procedure of the direct method. But let no one suppose that teaching by the direct method is an easy task. In the Preface to *Primus Annus* (p. 7) Mr. Andrew utters a clear word of warning on this point, and in *Praeceptor* (p. 14) he returns to the charge in the following words:

Still, it must be admitted that the direct method of teaching Latin is hard; it demands forethought, skill, brains, and faith, and any teacher who desires an easy way of teaching Latin had better keep off this.

The one thing which, above all others, renders the direct method so difficult is, of course, the fact that it throws such a weight of responsibility upon the individual teacher. Working with a conventional method, with a textbook that covers every detail and

<sup>1</sup> This charge is discussed seriously in chap. xi of *Praeceptor* (pp. 85 ff.).

explains every difficulty in the most lucid English, we all know how hard it is to impart to some students a real knowledge of the subject. Under the direct method, the problem of instruction is infinitely more complicated. The student must begin with forms embodied in sentences; and, without knowing anything about the inflection of Latin words, he must take up in a single lesson, let us say, the accusative singular of all declensions or a cross-section of verbs of all conjugations. With no explanation in English, and relying upon pantomime, pictures, etc., the teacher must impart to the student the meanings of the words used and the significance of the terminations. Even for the best students the work begins in a perfect swirl of uncertainties and guesswork is at a premium.

With the help of the little the student knows and the much he guesses, a Latin classroom vernacular is slowly built up, through which grammatical difficulties may be explained. Ultimately the student must be led along to the point where his scattered items of information fall into a system, and he really knows his paradigms and the rules governing the use of the forms of which they are made up. In this very delicate and difficult problem of synthetic development of the pupil's knowledge, mistake and failure on the part of the teacher would be all too easy. No textbook does, or perhaps could, take the responsibility, beyond laying down some general principles with illustrations. The teacher must himself plunge in—and sink or swim, as the case may be.

2. *Special training required by the teacher.*—In view of what has been said under (1), it must be obvious that teaching by the direct method is not to be undertaken as an offhand experiment. We should, therefore, accept with a certain reservation one of Dr. Rouse's latest remarks on this subject: "As for the teachers, they can do what we have done; they can teach themselves. It only needs work."<sup>1</sup> If the term "work" is here so interpreted as to cover a large measure of preliminary self-training, the statement may stand; but no teacher should imperil the welfare of his department by hasty innovation. (The first necessary qualification for the use of the direct method is, of course, the power of fluent expression in faultless Latin. If one may judge from the specimens of

<sup>1</sup> *Classical Journal*, X, No. 2 (November, 1914), 50.

written Latin frequently seen, some teachers at least are not at present well equipped in the matter of this first necessary qualification.

3. *The danger of imparting error.*—The direct-method books published in England represent a considerable period of classroom experience,<sup>1</sup> and they regularly contain prefatory notes indicating that they have been reviewed, before publication, by Dr. Rouse or his immediate associates. In these books, therefore, we should naturally expect to find something approaching perfection; but in these finished products there are numerous infelicities which raise very disquieting doubts as to the atmosphere and diction even of some classrooms where the direct method has been in use for some years. It is hoped that frank treatment of this aspect of the subject will be counted neither ungenerous nor unfriendly. The advocates of the direct method have put their wares upon the market and ask us to buy; and, as we have much at stake in the matter, we surely have the right, indeed we are in duty bound, to examine carefully before investing.

As to classroom atmosphere, Mr. Andrew's theory is stated with great clearness:

A conversation like the following is as easy in Latin as in English: "What was yesterday's home work?" "We had to prepare the story." "Hadn't you something to write?" "No, sir, we had nothing else to do"; whereas a conversation like "You are late, Marcus." "Yes, sir, I punctured my bicycle," etc., would be rejected as un-Roman. The same principle applies to the *Reader*; it should deal with Roman life. Stories like *Robinson Crusoe* in Latin are bad, simply because their atmosphere is not Roman. They may, of course, be read "for fun," but that is another matter.<sup>2</sup>

In *Puer Romanus* an unusually successful attempt has been made to carry out this program. But even here there are flaws; for to talk of "opening" windows (p. 82), or to speak of pictures "hanging on the wall" (p. 8) can hardly fail to implant wrong notions in a student's mind.

This fault is much more pronounced in some of the other texts. Thus in *Pons Tironum* we read of a thief who, from the street, notices an open window in a Roman house; entering through this, he appropriates the family plate and attempts to make off with it

<sup>1</sup> In the Perse School, thirteen years (*ibid.*, p. 49).

<sup>2</sup> *Præceptor*, pp. 15 ff.

in a bag.<sup>1</sup> In *Olim* there are still more surprising scenes,<sup>2</sup> in which Cato the Elder is represented as all but mobbed on the street by Roman matrons, who threaten to "throw stones at the windows of the senate house"<sup>3</sup> and to destroy the senators' mail with acid (?),<sup>4</sup> and cap the climax by raising the cry "Votes for Women."<sup>5</sup>

In such passages the practice and theory of the direct-method school stand in sharp contrast. Both practice and theory are open to criticism. The practice is bad, and the theory is narrow. The Romans themselves (Quintus Curtius, for example) had plenty of occasion to describe non-Roman peoples and things; and there seems to be no cogent reason why "made Latin" should avoid non-Roman topics, *provided* that things non-Roman are represented in their proper setting, and the narrator describes them as if seen through Roman eyes. It is when the Romans themselves are represented as actors in non-Roman scenes that a tactical error is made.

As for the matter of classroom diction, Mr. Andrew is not troubled by any misgivings. He admits, of course, that we are handicapped in our efforts to talk in Latin, but adds: "We have knowledge enough to be able to speak it [i.e., Latin] in such a way that Cicero, hearing it, would understand and would not be offended."<sup>6</sup> This is a bold claim for anyone to make; and it certainly is not justified as yet, even in the best schools where Latin is taught by the direct method—that is, if we may judge from the infelicities and barbarisms that filter up through the carefully edited and revised texts now being put forth in England. No attempt has been made to collate this material in a systematic way. A few examples will suffice to make the point clear.

In the first place, one is impressed with the large number of phrases in which there is a discordant note; either the meaning of some word is forced, or the phrase is constructed on an English rather than a Latin plan; e.g.,

<sup>1</sup> P. xxxiii.

<sup>2</sup> Pp. 38 ff.

<sup>3</sup> "Lapides in curiae fenestras coniciamus" (p. 38).

<sup>4</sup> "Epistulas atro aliquo veneno ita corrumpemus ut legi non possint" (p. 44).

<sup>5</sup> P. 41 *fn.*

<sup>6</sup> *Praeceptor*, p. 13.

- M. Qualis est ianua? P. Clausa est ianua. M. Et fenestra, qualis est?  
 P. Aperta est fenestra (*Praeceptor*, p. 30).  
 ianuam, quae semper stat clausa (*Puer Rom.*, p. 5).  
 dic mihi per quid domum intres (*Puer Rom.*, p. 6).  
 quadringenti aliqui milites<sup>1</sup> (*Puer Rom.*, p. 8).  
 cum risu exclamat<sup>2</sup> (*Puer Rom.*, p. 10).  
 prandium edit (*Pons Tir.*, p. xxvii).  
 et recte suspicatus sum<sup>3</sup> (*Pons Tir.*, p. xxxxi).  
 incipe recitare<sup>4</sup> (*Praeceptor*, p. 82).  
 studiis perfectis<sup>5</sup> (*Puer Rom.*, p. 69).  
 manus eius a pectore pulsando amovere (*Puer Rom.*, p. 37).  
 illa in aqua caro (*Pons Tir.*, p. xxi).  
 priusquam finis sessioni adsit<sup>6</sup> (*Puer Rom.*, p. 28).  
 ad cenam vocatur<sup>7</sup> (*Puer Rom.*, p. 17).  
 iudicia conveniunt<sup>8</sup> (*Puer Rom.*, p. 18).  
 recti inimicos<sup>9</sup> (*Olim*, p. 40).  
 male faciunt<sup>10</sup> (*Pons Tir.*, p. xxvi).  
 videbis ubi stet municipium<sup>11</sup> (*Puer Rom.*, p. 5).

Coming to more specific points, even the casual reader of the direct-method texts will note with surprise many details of vocabulary, forms, and syntax that fit very poorly with the professed aim of producing a Ciceronian effect. A few such are the following:

*incepi* written almost without exception for *coepi*.

Compounds of *eo* regularly uncontracted in the perfect tenses; e.g., *redivistis*, *redivimus* (*Puer Rom.*, pp. 27 and 47).

Violation of the law of sequence; e.g., "saepenumero ne moreris tibi imperavi"; and "ut negotia quaedam secum agam, me . . . vocavit" (*Pons Tir.*, pp. xii and xxx). Noteworthy too is the liking for the post-Augustan perfect subjunctive in secondary sequence; e.g., *Puer Rom.*, pp. 13, 14.

The gerund with an object preferred to the gerundive; e.g., "quas taedet me narrandi" (*Pons Tir.*, p. xxxxi; cf. p. xxxiii *fin.* and xxxxi). So *Puer Rom.*, p. 26: "narrando somnium."

Careless use of the oblique cases of adjectives and pronouns as neuter; e.g., "de omnibus certior est factus" (*Puer Rom.*, p. 20). Cf. also the neuter *quorum* with *obliscor*, *Pons Tir.*, p. xxxxi.

<sup>1</sup> "Some four hundred soldiers" (?).

<sup>2</sup> For *ridens* . . . *inquit*.

<sup>3</sup> For *neque me id fefellit*.

<sup>4</sup> For *primus recita* (?).

<sup>5</sup> "When classes are over."

<sup>6</sup> "Before school is out."

<sup>7</sup> "Dinner is announced."

<sup>8</sup> "Court convenes" (?).

<sup>9</sup> "Wicked men."

<sup>10</sup> "Misbehave" (in school).

<sup>11</sup> Said with reference to a map.



Construction with the comparative in sweeping negations: "Nihil pulchrius esse potest quam militis habitus," *Pons Tir.*, p. xv.

Ablative absolute without subject or dependent relative: "impedimenta collegimus, collectisque discessimus," *Puer Rom.*, p. 13.

Not to linger over this enumeration, note in passing the following: "Vox *alius* pueri" (*Olim*, p. 46); "Hunc . . . saxo residentem conspexit" (*Pons Tir.*, p. xxxv); "si *vis* [indefinite second person] intrare" (*Puer Rom.*, p. 5); "*periculis* plenum" (*Puer Rom.*, p. 69); "fortiores *canum*" (*Puer Rom.*, p. 36). Occasionally the expressions are Delphic in character; an amusing instance is found on p. xxxv of *Pons Tironum*: "si quis appropinquavisset viator, [Scironem solere] cogere eum sibi pedes lavare atque in mare praecipitare."

It may well be true that the laxness in Latinity noted above is in part due to the fact that the direct method makes such early and extensive use of the poets; such practice might easily blunt one's sense of the requirements of Ciceronian prose. The effects, however, are at times grotesque; for example, *pellis* serves very well for *cutis* when a thrashing is in question (*Pons Tir.*, p. xxviii), but it is startling to find it used of the skin of a dead person under the hands of the undertaker (*Puer Rom.*, p. 42). But whatever may be said otherwise, there is certainly no excuse to offer for such egregious blunders as the following:

exercitum in *locos tutos* subducit (*Puer Rom.*, p. 9).

*vobis* narrabo. *Specta* tabulam (*Pons Tir.*, p. xx).

Titum *demorar* meque audire cogam (fut. indic.) (*Olim*, p. 38).

*neutri* generis (*Praeceptor*, p. 60).

tum hic [Coriolanus] mihi *nubet* (*Cothurnulus*, p. 7).

*avunculus* for *patruus* (*Puer Rom.*, p. 44; cf. what is said on p. 47).

Note also "revertimus" [apparently pres.] (*Puer Rom.*, p. 5); "mihi loqui vis" (*Olim*, p. 25); "sunt quae . . . debent" (*Cothurnulus*, p. 26); "me in rus vocavit" (*Pons Tir.*, p. xxx); "Catonis domi" (in scene heading, for apud Catonem?) (*Olim*, p. 32); "domum apud eum statim ivi" (*Pons Tir.*, p. xxxiii); "pugnant . . . hac ira, hac pietas. cui<sup>1</sup> te dabis?" (*Cothurnulus*, p. 19).

<sup>1</sup> I.e., "to which (of the two)?"

To preclude any possibility of misunderstanding, it should perhaps be stated definitely that such blemishes as these do not by any means demonstrate that the direct method is proving a failure in England. At the same time, such infelicities and errors, found in carefully edited texts that represent years of experience in actual classroom practice, show conclusively that the classroom atmosphere and diction, even in the best schools and with the best direct-method teachers, is as yet far below par, if judged by a Ciceronian standard. We have no quarrel with Professor Potter in his assertion that the direct method is "sound pedagogically,"<sup>1</sup> but we are far from convinced that it is the *only* sound method, or that it is a *safe* method for most American schools.

4. *The time element.*—For the successful use of the direct method a liberal time allowance must be made. Mr. Andrew assumes that the English schoolboy will begin his Latin at the age of twelve, preferably after a year of French by the direct method and a course in the principles of formal grammar and phonetics. It is assumed that the boy will continue his Latin through a six-year course. *Primus Annus* provides work for about a year and a half; *Puer Romanus* carries the class along well into the third year, and, after its completion, the "reading of an actual Latin author" may be begun.<sup>2</sup> By the fourth year the boys will be advanced enough to undertake seriously translation from Latin into English, the work having been conducted, up to this point, almost entirely in Latin.<sup>3</sup>

5. *The administrative problem.*—Under this head, attention is called to but a single point, namely, the confusion that would result from a sporadic adoption of the direct method of teaching Latin. Students who change residence from one town to another would be sadly inconvenienced if obliged to continue their Latin in classes trained in a radically different way. In a personal letter from a teacher in one of the largest preparatory schools in the country, I find the following, which sets forth this difficulty concretely:

Only today I have talked with a boy who has had three years in the school which is supposed to have made the greatest success of the method advocated by our state superintendent of public instruction. This boy, strongly

<sup>1</sup> *Classical Journal*, X, No. 7 (April, 1915), 324.

<sup>2</sup> Preface, *Puer Romanus*.

<sup>3</sup> *Præceptor*, p. 78.

recommended by his former school, asked to be allowed to enter our beginners' class, on the ground that he did not know a thing about Latin from any point of view.

To resume, then, every teacher who thinks of adopting the direct method ought first to count the cost, weighing well the considerations outlined above: (1) the difficulty of the method and the chance of complete failure, (2) the need of careful preliminary training on the part of the teacher, (3) the probability of imparting error to the class, (4) the length of time required for the successful development of the plan, and (5) the administrative problem.

Of these five considerations the matter of the time element will doubtless appear to many teachers the most immediate and pressing. Our students are from fourteen to sixteen years of age when they take up the study of Latin, and the majority of them discontinue the subject at the end of the second year. Our problem is, therefore, very different from that seen in the schools of England; and probably few American teachers will sympathize with Mr. Andrew's extreme view that, whether a student ever gets to the point of reading a classical text or not, it still is better that he should devote a year or two to such training as he can get with direct-method classes that are going on to a full course in Latin.<sup>1</sup> Most teachers will feel that their students should read extensively in at least one author; and if it could be shown that (under the time limits imposed) the direct method is the shortest and surest road to this goal, one of the chief obstacles to the introduction of the use of that method would be removed.<sup>2</sup>

<sup>1</sup> *Praeceptor*, p. 46.

<sup>2</sup> Though it is perhaps inevitable that American teachers will approach the question from this angle, the English advocates of the use of the direct method would probably be inclined to complain that this procedure precludes a fair hearing of their case. And there would be some ground for such a complaint; for the whole plan, as it is developing in England, is *sui generis* in its scope. Thus *Puer Romanus* (which is put between a "beginners' book" and the reading of "an actual Latin author") is a sort of "Roman Life in Prose and Verse," and the student who perseveres into the third year and finishes this book will have had a taste of things Roman, and will have read some real Latin, too—in the way of short selections.

But here we are brought sharply face to face with another of the obstacles that stand in the way of the adoption of the direct method, namely, its difficulty. The reading in *Puer Romanus* is far harder than the Caesar and Cicero ordinarily read in the schools. Passages from Latin literature are culled from every quarter—poetry

While a few American teachers are taking a large chance and introducing the use of the direct method without knowing whether it can be carried through successfully or not, what should the rest of us do? In the first place, we should watch the progress of the experiment with a calm and undisturbed mind. Too often the direct-method propaganda is made to rest on the more or less tacit assumption that the fate of Latin as a high-school subject hangs upon the success or failure of that method. Such an assumption is gratuitous and absurd. Even Mr. Andrew, prejudiced as he is in favor of the use of the direct method, yet has the candor to say parenthetically: "I have no wish to deny that under the old method, . . . in actual practice, good work is frequently done which is very much in the spirit of the new."<sup>1</sup> It is, therefore, no time for panic or for "rocking the boat." We should rather, in the second place, subject to a careful scrutiny the method of instruction now in general use, to see if it can be brought into "the spirit of the new." If this is possible, we shall not need to risk the dangers of a radical experiment that would throw our whole system of Latin instruction into a chaotic condition for years to come.

Few will deny that the present method of teaching Latin falls short of the ideal; and the discussion centering about the direct method has been helpful in bringing its failings into clearer light. In this connection, attention is called to four particulars in which our work has been open to criticism.

and prose alike—and all periods, from Ennius to Pliny and Juvenal, are drawn upon. Any teacher who wants to know what it is to teach Latin by the direct method should work through a passage such as that which begins on p. 45 of *Puer Romanus*. Many college classes, with the help of two or three pages of notes in English and with frequent recourse to the lexicon, would find this passage not very easy going; yet, under the direct method, the schoolboy who had not yet taken up "an actual Latin author" would face this passage with such helps only as the teacher could give him in spoken Latin.

In this connection, the casual reader may well be moved to raise the question whether it is wise or necessary to make an "elementary" book like *Puer Romanus* so difficult. On the surface there seems to be no systematic effort to grade the passages or to remove unusual obstacles from the path (e.g., *mirabile dictu, eatur, plus solito, exsequias eunt, sies, cantant mulua, pretio venit, deos cura rita colas, felis instar, hac quidem tenus, mihi cordi erat, aera* (from *aer*), *in eo erat ut interficeretur*, etc.).

<sup>1</sup> *Præceptor*, p. 47.

1. *Lack of human interest.*—The study of Latin has been made a very solemn and severe matter, far removed from the familiarity of everyday life. Even the Plautus class encounters its first Latin jest in a spirit of staid decorum—as though it might be a fatal breach of good manners to smile while dealing with a subject so serious. In this particular, reform is already beginning; and the teacher who wants to enliven beginning Latin finds an increasing amount of material ready to his hand.

2. *Misplaced emphasis in grammatical training.*—On this point Mr. Andrew's strictures are none too severe when he says: "Some teachers are never happy unless they are feeling the grammatical pulse of their classes. The words of the text . . . are so many *corpora vilia* for grammatical operations—the gender of this, the supine of that, the rule for the other thing. This anatomizing habit is the mortal enemy of interest."<sup>1</sup> The most obvious remedy for this difficulty is to increase the time given to the *writing* of Latin, and to make this *written* work the basis of most of the grammatical drill. This arrangement has a double advantage; the interest in the reading is not destroyed, and the pupils gain a real proficiency in writing which makes that part of the work a pleasure instead of a bugbear. And surely if a student can *write* a construction correctly in Latin, he need not be persecuted with frequent calls for the name of that construction.<sup>2</sup>

3. *Failure to grade the work properly.*—This is one of the most serious of the faults of our present system, and to it must be attributed in large measure the frightful mortality at the end of the second year. The students, fresh from the beginners' class, are thrown wholly unprepared into Caesar, where, in the early lessons, they must delve an hour or two to eke some sort of meaning out of a few lines of text, and in the year cover less than a hundred Teubner pages. In this day of free election and broadly attractive curriculum it is a wonder that such a program has not killed the subject in the schools. The way of reform is foreshadowed in Professor

<sup>1</sup> *Praeceptor*, pp. 53 ff.

<sup>2</sup> In a discussion of the results of recent examinations in Latin of the College Entrance Examination Board, Professor McCrea makes suggestions of great interest in this connection; see the *Classical Journal*, X, No. 8 (May, 1915), 348.



Lodge's *Vocabulary of High School Latin* and Mr. Byrne's *Syntax of High School Latin*. With such helps as these it is possible to shape the preliminary work more definitely toward the needs of the later years of the course. So far as it goes, this is excellent; but it does not go far enough. It is now becoming increasingly clear that a part of the time usually spent upon Caesar should be given over to easy, *graded* readings. Inasmuch as no actual Latin author provides such reading-material, it follows that the best results can be obtained only by "making" Latin that will exactly meet the need.<sup>1</sup> Some schools are already using such texts, and with most gratifying results; indeed, it is being found that the time spent in preliminary reading diminishes little or not at all the amount of Caesar read; for the students are so much better prepared for the Caesar, when it comes, that they read with a rapidity unknown under the old system and, better than all, with some real appreciation of the interesting story which their author has to tell.

4. *Unsatisfactory methods of testing proficiency*.—Here again we have been bound by a dead tradition. From time immemorial it has been counted a sufficient test of ability to read a Latin author that a student should be able to write out a more or less accurate rendering of passages previously studied and explained in class. It is this vicious system of testing proficiency that is responsible for most of the "cribbing" of which so many teachers complain. Long ago Professor Lodge pointed out the absurdity of testing a pupil's power of *writing* Latin by setting before him passages of English previously unseen, while his power to *read* Latin is tested only by assigning passages he has previously studied. In this matter the Commission on College-Entrance Requirements in Latin took a forward step in recommending that every examination in a Latin author should contain a passage at sight, and that no paper should be passed in which the student failed in the sight passage.

<sup>1</sup> Cf. Professor Kirtland's remarks on this point in the *Classical Journal*, X, No. 5 (February, 1915), 232. The proposal to interject some "easy reading" between beginning Latin and Caesar is, of course, no novelty. The trouble has been that most "easy" reading is really neither easy nor graded. This is true even of much "made" Latin. There is at hand a short selection from *Viri Romae* that contains 36 pages of text—and 55 of vocabulary. This simple test tells the whole story.

More effective still is the following plan, which the writer has found to work very satisfactorily. State frankly to the class at the beginning of the term: (1) that the translation in every test and examination in the course will be wholly at sight, and (2) that selected passages from the material read in class will be made the basis of questions (particularly grammatical) which cannot be answered without a thorough understanding of the text. To prepare students to meet such tests as these would mean extra work for some teachers; and the student would have to contract the useful habit of keeping an accurate and well-filled notebook. The best feature of the plan, perhaps, is the fact that it everywhere puts a premium on honest preparation; indeed, the mere announcement of the program outlined above might serve to eliminate at the very start some of the lazy and the dishonest.<sup>1</sup>

This paper would not be complete without a reference to the growing sentiment in America in favor of a reorganization of the public-school system which permits students to begin the study of a foreign language as early as the seventh grade. Children who begin Latin thus early will ordinarily devote at least two years to preparation for Caesar. This time allowance, however, is not as liberal as it might seem, because little home work—or none at all—may be possible in the seventh and eighth years.<sup>2</sup>

For classes of these less mature students the case for the direct method would rest principally on the fact that younger children imitate more freely and memorize more easily. Otherwise there are about as serious obstacles to the introduction of the direct method here as elsewhere; for the time element (as shown above) is about the same; the difficulty of synthesizing the student's knowledge may be greater; the teacher will himself need even more careful preparation; the danger of imparting error will be the same; and the administrative problem may be more complex.<sup>3</sup>

Aside from considerations of method of instruction, the question is sometimes raised whether it is desirable to attempt to begin

<sup>1</sup> In this connection, cf. what is said by Mr. Max Radin in the *Classical Weekly*, VIII, No. 27 (May 15, 1915), 212.

<sup>2</sup> See the *Classical Weekly*, VIII, No. 22 (April 10, 1915), 172 ff.

<sup>3</sup> See again the *Classical Weekly*, *loc. cit.*

Latin in the seventh grade where school organization so permits, or whether it is better to leave this new field to the modern foreign languages, giving the student no opportunity to begin Latin before the traditional time, i.e., in the ninth grade. To the writer it seems that to this question but one answer is possible, namely, that Latin should by all means take its place in this new field side by side with the modern languages. Some of the reasons on which this conviction rests have been stated elsewhere.<sup>1</sup> One other practical consideration should be noted.

At the rate of progress expected of a seventh-grade beginner, a child who takes up a modern foreign language at that point will have covered the work of about one high-school year by the time he reaches the ninth grade. If he wishes then to begin the study of Latin, he must either find place in his schedule for two foreign languages, or he must drop his modern foreign language without having reached a point of real proficiency in its use. Confronted with these alternatives, many students would with reason postpone the beginning of Latin to a still later time, and some ultimately would not elect it at all. If, therefore, Latin does not take its place in the seventh grade alongside the other foreign languages, it will in many cases lose its opportunity in the ninth grade as well.

A final word as to method. Experience in the California schools is demonstrating very clearly that the personal equation is a factor of unusual importance in the teaching of Latin in the grades. Perhaps no more serious mistake could be made than to attempt to standardize rigidly the work of the teachers who have this subject in charge. It is essential, of course, that the work be done in accordance with a general plan, so that everything will converge toward a definite goal; but, beyond this, freedom is required. Left to themselves with the problem of detail to work out, teachers even in the same town develop quite different—and successful—methods of handling their classes. Insistence on slavish conformity to a norm would be unfortunate in the extreme.

<sup>1</sup> The *Classical Weekly*, VII, No. 20 (March 21, 1914), 154 ff. Cf. Professor Deutsch's paper, *ibid.*, VIII, No. 16 (February 13, 1915), 122 ff. See also "The Desirability of Latin in the Eighth Grade," by Mr. W. L. Carr, in the *Classical Journal*, IX, No. 9 (June, 1914), 385 ff.; and "Latin in the Junior High School," by Professor Lodge, in *School and Society*, I, No. 9 (February 27, 1915), 300 ff.

In a recent number of the *Classical Weekly*,<sup>1</sup> Miss Anna S. Jones seems to betray some disturbance of mind because she finds that the decorum to which she is accustomed in the high school is not native to the seventh grade—and she is altogether right in insisting that mere noise and enthusiasm do not spell success. Yet, while it may be true that some teachers can make Latin live in the seventh grade even though the natural spontaneity of the scholars is somewhat severely repressed, still it is also true that other instructors can harness this natural spontaneity and make it a vital factor in the work. A case in point is that of a teacher whose classes are often so enthusiastic that the principal occasionally looks in to see what is happening; but there is a method in it all, and when these same classes reach the point where they take up Caesar they are able to cover three or four books in a single half-year. It is by the fruits of the work that a teacher and his methods must be judged.

In a paper of this sort there inevitably must be features that will not please every reader. In dealing with vexed questions such as are here considered, we should all do well perhaps to join the New Academy and adopt Cicero's very sensible motto: "et refellere sine pertinacia et refelli sine iracundia parati simus" (*Tusc. Disp.* ii. 2. 5).

<sup>1</sup> VIII, No. 17 (February 20, 1915), 130 ff.

## CHASING PHANTOMS IN LATIN TEACHING

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*Quid frustra simulacra fugacia captas?  
Quod petis est nusquam.*

—Ovid.

The prevalent discussion of educational theory and practice is bearing fruit in the minds of those who furnish the students of our schools, and it is a fruit which is not always palatable to the confirmed tastes of the classical teacher. Not only from the exterior, however, are we teachers of Latin facing opposition, but from within the ranks of the teaching community itself come criticisms more and more outspoken. The crop of preceptors which the colleges have sent into the market of recent years has not been imbued with any deep-seated regard for the classical studies as elements vital to a liberal education. I am speaking now of non-classical teachers, and the force of facts as brought to bear upon my own prejudices compels me to acknowledge their ominous presence. The truth is that we have not that substantial professional backing to which the older ones among us were accustomed in the early days of our teaching. I am not despondent, nor am I pessimistic with regard to Latin studies, yet I do feel it incumbent on me to detach myself occasionally from my daily occupation and hearken to the murmurs of the town, without either forgetting that occupation or closing my mind to what I may hear. It certainly is disquieting to face the attitude of fathers who studied Latin in their school days, yet do not now consider it worth the effort which they think they expended upon it. Are we no longer able to transmit our faith, or is that faith itself too feeble?

Are we, perhaps, vaunting the glories of authors whom we do not seek out for our own companions when we wish real contentment and joy? Students respond to anything genuine, even to enthusiasm for a classical author; but they get heartily weary of



hackneyed encomiums on a literature to which they find that their teachers themselves devote none but business hours. It might be wise to have less proclamation of virtues and more exhibition of them. If Latin is to survive the tests of the efficiency experts, it must prove its humanitarian value in results, not in assertions, and these results assuredly must appear in the teacher himself first of all, and should begin to be measurable in the student who has devoted four years to the study.

It is just at this juncture, however, that the humiliation of the hopeful teacher is made manifest, for there does not appear to be any wild scramble to delve in the broad fields of Roman literature so attractively thrown open to cultivation in our colleges. The hard fact is here. Can we logically expect that the major part of the students who drop Latin at the close of school days will listen sympathetically to the stock phrases in praise of Latin literature when they recall the alacrity with which they themselves surrendered the attempt to enter the charmed presence of the classic muses? This is no hypothetical bogey, but a question arising out of a grave situation. What can be done about it? Is the help to come from new methods or rather by a reversion to older ways? I regret that the limitations of this paper confine my attention to criticisms more or less destructive in character. It is my purpose to discuss two proposals for the betterment of conditions, which, because of their unsubstantial character, I have chosen to call phantoms.

The first is the so-called direct method. Its enthusiastic followers assure us that a revival of the lost art of conversation will save the day for Latin; so we have a flood of new manuals from the presses of the publishers to show us just how the game is to be played. We must train our pupils in what we ourselves do not know, in order to awaken in them that apparently most evasive of all the phenomena of consciousness, *interest*. The game offers a pleasing diversion, and as such only commendation can be given it. Under skilful guidance it may develop a facility and dexterity altogether admirable—until one compares it with a French or a German game conducted under the same rules. When, however, we are asked to believe that a few elementary questions with a few

simple answers will solve the problem of the status of Latin in our education, I demur. We are told that when once the learner has felt the thrill of vocal communication, and gets his grip on the group idea, there need be no fear about the avidity with which he will turn to the then exciting campaigns of Caesar, the thrilling eloquence of Cicero, or the stately melodies of Vergil. Does one really think of the glib-tongued concierge of a Continental hotel as seeking his soul's delight in the pages of Goethe or Milton? He can, nevertheless, do the trick which we are invited to learn, and he is perhaps to be envied, but is he what we want?

It is idle nonsense to pretend that the great mass of present-day teachers in our schools either do speak Latin or can speak it. (Observe my respectful reticence with respect to colleges. Gentlemen, my compliments!) I have looked in vain through the catalogue of even our oldest university for any course in which either instructor or student speaks Latin. Nothing of much value can be done in this line until proper training is provided. Can anybody, however, hope to see Latin a successful rival of German or French through methods of spoken utterance? We have no more call to enter the field of spoken languages than the modern-language teachers have to frame their teaching on the methods which have proved their value when applied to ancient and vocally dead tongues, but which have little to recommend them for the attainment of serviceable power in a language that has an active place in the work and thought of today. They have a reason for learning to speak; we have no one to whom we may speak. If Latin cannot hold a place in our system unless it bows to Herr Berlitz, then it must give way with what grace it can to the living, breathing thing. I fear that if we begin to speak Latin, we shall end by talking it to death! Let me emphatically remark that whatever good can come from the direct method in cultivating the art of grasping the meaning of words in groups has my hearty approval; but I do not believe that there is in the method either a "means of grace" or a "hope of glory" for Latin study.

We have seen the schools, colleges, learned societies, and committees stirred and excited over the proposals to oust the accredited authors from their time-honored seats and to substitute others that

should captivate the mind of the pupil and enlighten that of the teacher. Now voices are heard telling us that ancient books are not suitable in subject-matter for the creation of interest in modern youngsters; the thing to do is to provide something that will have a twentieth-century flavor and treat of modern subjects, to be used as supplementary reading to enliven the drudgery of the daily grind.

As a specimen of these efforts, I have chosen the *Rex Aurei Rivi* (a translation of *The King of the Golden River*, by Ruskin), a booklet by Dr. Arcadius Avellanus, privately printed, but obtainable in New York. I was led to spend considerable time in studying this attempt to produce in Latin something which the older Roman writers evidently had felt themselves unable to evolve. A cursory glance told me that the translator had succeeded; there is nothing like it in the ancient authors. In these less than thirty pages there is spread before the wondering eyes of the reader a composite picture of the vocabulary and usage of the entire body of the Latin literature from Plautus to Avellanus. It must be confessed that there is a dash and go to the story, a fluidity of expression, and a virility that command even our recalcitrant approval. The translation sweeps along with a determined rush, as a river should, but with the tokens of its travels in the flotsam of its waters. As a *jeu d'esprit* the little book would not fail of a welcome by all who like surprises and enjoy a novel experience. It would have entertained Aulus Gellius very much and one Horatius Flaccus more. The promoters of this translation believe that it presents a genuine help out of our most trying troubles with young students, and that it makes a pleasant path through the wilderness of the classical authors. On this claim alone we are driven to the ungracious task of challenging its real character.

Considerable leeway may be freely granted to the writer who has the difficult task of presenting modern ideas in a dress that was designed for a figure quite different. Naturally terms must be invented for things which were born after the language had died, and perhaps only kindly charity should greet a posthumous child. Nevertheless we cannot approve of all that this child says. In

startling juxtaposition are words from the early Latin and from the latest; words that are rare, words that are found *only once in the literature*, and words that appear in no author of a book; to these must be added words that have seen the light for the first time in this story. Now there can be no just quarrel with the translator because of a generous range of vocabulary, but there are limits even to latitude. In an introduction, the generous sponsor for this book makes some apology for the mixed diet of the speech, but in sympathy with the author adds: "We part company with all to whom Latin means the style of a few selected authors or nothing." He remarks further: "Many of those who can read this story will find after the first few pages that they are beginning to read with pleasure, and will discover that in this way a foundation can be laid for such a knowledge of the Latin language as will enable them, not merely to work through a classical text, but actually to read an oration of Cicero or a book of Caesar with some knowledge of the writer's meaning and style." Now all this has a certain charm, but the trusting reader will meet many surprises, the first of which, possibly, may be that he is not one of those "who can read the story" at all. I fear that many seasoned readers may find it necessary to have recourse to their "Harpers" with humiliating frequency, and it is a severe tax on belief that inexperienced students, even with freshly kindled interest, can burn up the words "as the tongue of fire devoureth the stubble."

Inasmuch as the assertion is made that the book will enable one to read an oration of Cicero or a book of Caesar, it would seem permissible to study its vocabulary a bit in relation to the authors read in our schools. I have therefore taken the entire vocabulary of Caesar, the whole of Cicero's extant orations, all of Nepos, and Vergil's complete works; assuredly a generous assemblage of words for a beginner. In the light of this vocabulary, I have read these less than thirty pages of simple narrative. Surely, if the book is to aid greatly toward an understanding of these authors, it should employ a language fairly within their range. What is the fact? I have noted in the tiny booklet no less than 267 words which *do not occur at all in any of the authors mentioned above*, an average

of almost 10 to the page of actual print. These may be tabulated as follows:

Classical.....	109
Early Latin.....	23
Post-Augustan.....	44
Late Latin.....	22
Words found once.....	15
Poetical words.....	14
Beyond "Harper".....	40
Total.....	267

Without a doubt the writer has parted company with "all to whom Latin means the style of a few selected authors." This list, of course, would be greatly increased if the comparison were made with the actual vocabulary of the widest range of the preparatory course. In the matter of syntax also there is the same benevolent welcome to all sorts and conditions of structure, even to some that have escaped the notice of history and the inquisition of the grammar. Without setting out on a still hunt for game in this preserve, one may see many strange creatures scurrying across one's path to the "Golden River."

The influence of this ingenious work was so infectious that it occurred to me to try my hand at the same device for enlivening the *English* instruction in our schools. Assuming that there are no suitable materials in the English literature for arousing "interest" in that literature itself, I propose to furnish forth a story out of the treasures of the Latin, but done into English that shall attract and charm the student and illumine his path to Burke and Milton. For this purpose I have chosen a short narrative from Pliny, being influenced, no doubt, by its apparent connection with my theme, for it is entitled, "The Haunted House."

#### THE HAUNTED HOUSE

In Athens there was a house big and roomy, but of ill-renown and teeming with bale. There sounds usen to arise on the stilly night, and should one but hearken keenly, a clattering of cheynes oprose althefirst far off, anon near by. Eftsoons appeared a goost, an old carl, forwered, scrawny, and foul, the whiskers of him long, his hair upstanding. On his legs were schackeles, on his hands cheynes, the which he did shake. Sithen the indwellers spent sad



and fel nights, wide awake and agrisen; and sickness and death through the gastnesse y-waxen, followed swiftly the wakefulness. For ay whylethat it was day also, although the goost had disappeared, athwart their eyen did float the recollection of thilke spook, and fright outlived its occasion. Eftsoons the house was condemned to louness and altogether y-laft to thilke ferly. Nathelees it was advertised in the hope that some guy, witless of its bale, might be buncoed into buying it or leasing it. Now the philosopher Athenodorus came to Athens, read the posters, and ascertained the cheep; but as the bargain looked suspicious, he speired about the toun and got wise to the whole thing. Nathelees, nay for-thy the more, he hired the house. Whan that it began to grow derk, he ordered his couch laid in the front part of the house, asked for paper, pencil and a lamp. He sent his whole household off to the inner rooms, the whyles he buckled down to his writing with wit and eyes and hand, lest an empty head should conjure phantom sounds and devise fond fears for itself. Erst, as on each occasion, there was the quiet of night, anon iron was struck, and then came the chirking of the cheynes. He ne up-haf nat his head ne blinne his pencil, but steadied his mind and made it stop his ears. The clatter wex louder as it drew nigh, and was heard now at the door-step, now in-with the door. Athenodorus looked back, saw and bi-knewe the figure of which he had been told. It was standing and motioning with its finger y-liche to one calling. The philosopher, howsomever, signed to it to stint awhyle and bent again to his paper and pencil. The goost rattled his cheynes above the panne of the writer, which looked back upon it signalling as biform and beouten delay took the lamp and followed it. Thilke goost walked with slow step as if y-hevied with the cheynes. Whan that he had turned into the backyard of the domicile, he hot-foot vamoosed and left his companion, who y-laft pulled grass and leaves and set them on the spot for a sign. By the morwe he went to the selectmen and urged them to delve the place up. Pushed into and y-masked in the cheynes were discovered banes which the caroyne had left naked and y-corumped in the bonds whan that it had rotted with age and the molde. The banes were collected and sepultured at the cost of the state. When that the goost had been buried with due rites, the house lakede it.

Did you understand it? Well, it should be clearer to you than is the Latin of the *Rex Aurei Rivi* to one who knows only classical authors. The admixture of ancient and modern, chaste and colloquial, is no more startling in this spectacular English than in that kaleidoscopic Latin. Of course I am poking fun, but the thing is not so much exaggeration as a condensed presentation of what actually occurs in this latter-day Latin within less than 30 pages.

That one should imagine it possible to beget a love for a foreign tongue by a *tour de force* in the creation of a literature offhand of a

character that has no counterpart in that language, is suggestive of little else than an enthusiasm *informe ingens cui lumen ademptum!* It is the imperative duty of those who believe in the worth of the authors of antiquity to prevent the furtherance of what I cannot but regard as a treacherous blow at the very existence of Latin in our schools. If I have given an undue importance to this little book, it is not because I fear it, but because I do fear the movement which it represents. If we for a moment admit that the Latin literature is lacking in material suitable for the study of the Latin language, we thereby place a weapon in the hands of our opponents which sooner or later will find our own vitals. Shades of Cicero defend us! Must we then believe that modern pedagogues can paint the classic lily? Have the ancients fallen so low that we must lend them a patronizing hand? When shall we arouse ourselves to the inviolable necessity of standing or falling with the classics as they are, not by the meretricious mangling of their perfections?

A troubled *Zeitgeist* has begotten phantoms that would delude us, the one *ore loquendo*, the other *non bene scribendo*; attenuated wraiths, harmless to the initiated, but baneful to the believer in ghosts. When the longing for discovery is on us, let us follow, not such will-o'-the-wisps through the unsubstantial paths of dream-land, but the long-tried guides to the hills "whence cometh our help" and whence do flow the waters of the river of genuine gold.

## CO-ORDINATION OF LATIN AND GREEK WITH THE OTHER SUBJECTS OF THE HIGH-SCHOOL CURRICULUM

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This paper deals with the co-ordination of Latin and Greek with chemistry.<sup>1</sup>

Greek has paid the penalty imposed sooner or later by our present-day civilization upon every subject in the curriculum that refuses to meet its demand for immediate and demonstrable social service. When a few years ago Greek was deprived of the artificial support that college-entrance requirements had given it, instead of finding in that very revolution and the causes that underlay it a new principle which it must recognize thereafter if it would live, Greek has stubbornly refused to recognize or meet the demands of the new social ideals and has persisted in maintaining itself aloof, and even in priding itself upon that aloofness.

That policy has produced the present condition. If we are to restore Greek we must reverse that policy and, while holding fast to our faith in Greek as the finest possible instrument for the development of the *intellectual* and *spiritual* capacities of the pupil, we must socialize our Greek and develop to the highest point of efficiency the great capacities always inherent in it but heretofore largely ignored for *material* and practical service in the daily life of the pupil. The Greek ship of state lies useless in the harbor, not because it is less capable than before of traversing the high seas, but because it lacks the tug to get it started and enable it to thread its way amid the multiplicity of craft and through the narrow channel that together block its passage. We must provide that tug. We must provide it with that element which is not only fundamentally of great importance in itself and deserving of

<sup>1</sup> This paper has been prepared with the co-operation of Miss Jennie Hanna, head of the Department of Chemistry, East High School.

recognition for its own sake, but which tactically and strategically is of even greater importance, since it would enable Greek to get its clearance papers from our modern civilization and start for more distant shores.

This means a new type of beginners' book in Greek. The ideal illustrated by White's *First Greek Book*, magnificent as an instrument for realizing those higher but intangible values which we believe attach to Greek and justify its presence in the curriculum, must give place to another type, no less scholarly and no less effective as a cultural and disciplinary agent, but incorporating between its covers all points of contact with the daily environment of the pupil that the Greek language and civilization is capable of illuminating, whether in the field of language, art, architecture, history, or science. The vocabulary of this book, for example, will need to consider, not only the requirements involved in mastering the Greek language for its own sake, but also the requirements involved in making it a tool for immediate use in the mastery of contemporary subjects, such as science and mathematics, and in the interpretation of the Greek element in the ordinary linguistic environment of the pupil.

Definite, tangible material is as necessary for the continuous development of this phase of the work as in the mastery of the declensions and conjugations. It is for this reason that for the first time one of the papers of this series on co-ordination contains also the Greek element. Special investigations of this sort will not only equip the teachers with tangible applications for the Greek they are teaching, but will ultimately supply the textbook writers of the future with the material with which they must build.

In perhaps no other scientific field is the nomenclature so entirely Latin and Greek or the study of derivatives so illuminating as in chemistry. The entire development of many topics is vividly pictured forth to one who can interpret the root-meanings of the terms employed. This fact has led to a different arrangement in the following list than was employed in the biology and physics lists. The cumulative effect of the derivations of chemical terms would often be greatly impaired by the separation of naturally

associated terms involved in an alphabetical order. The arrangement is as follows:

1. A preliminary list of general terms alphabetically arranged.
2. Several topical lists with the words arranged in the order in which they naturally appear in the development. Only topics the importance of which is universally recognized are included.
3. An alphabetical list of the unusual or isolated words.

It is interesting to note that while in biology, physics, medicine, etc., there are many Greek words that have had a continuous history from the days of the Greek philosophers and scientists who first investigated these fields, in chemistry, on the contrary, there are no such words. Language thus reflects history. We owe much to the Greeks in biology, physics, and medicine, and our language recognizes that debt. We owe nothing to the Greeks in chemistry, which had its beginnings in the days of mediaeval alchemy and Arabic scientific research. So the language of chemistry possesses none of those direct inheritances of words that accompany the inheritance of ideas. The vast number of Greek words in chemistry are the deliberate borrowings of a developing science. The study of their derivation, while it fails to give the deeper glimpse into the continuity of human thought afforded in physics, is practically of more direct value, since the derivatives do not exhibit the changes in meaning that sometimes obscure the modern significance of an ancient word.

#### I. GENERAL CHEMICAL TERMS

English Word	Derivation and Definition
affinity	<i>adfinis</i> , neighboring, from <i>ad</i> , to, near+ <i>finis</i> , boundary= <i>closeness of relation</i> ; i.e., the force that <i>unites</i> dissimilar atoms in definite proportions.
attraction	<i>attrahere</i> , to draw to, from <i>trahere</i> , to draw+ <i>ad</i> , to=that property of matter by virtue of which it exercises a <i>pull</i> upon all other matter.
agent	<i>agens</i> , acting, present active participle of <i>agere</i> , to act=that which <i>acts</i> or does something; e.g., "the substance that produces oxidation is an oxidizing <i>agent</i> ."
reagent	<i>re</i> , back+ <i>agens</i> , pres. act. part. of <i>agere</i> , to act=a sub- stance that produces in another a <i>reaction</i> of such a sort that the composition of the latter is ascertained.



English Word	Derivation and Definition
reaction	<i>re</i> , back+ <i>agere</i> , act=the series of changes involved in the chemical action of substances upon each other.
interact	<i>inter</i> , among+ <i>agere</i> , to act (used of several substances) = to cause chemical changes each in the other.
apparatus	<i>ad</i> , to+ <i>parare</i> , make ready=things <i>made ready</i> for some particular end, as an experiment in chemistry.
artificial	<i>artificium</i> , a craft, trade (from <i>ars</i> , art, skill+ <i>facere</i> , to make)+ <i>alis</i> , pertaining to=something constructed by the <i>craft</i> of man, not by nature; e.g., " <i>artificial</i> illuminating gas as opposed to natural gas."
condenser	<i>con</i> , together+ <i>densus</i> , thick=an apparatus for <i>reducing</i> a gas to a liquid form.
composition	<i>com</i> + <i>ponere</i> , put together=the general structure of a substance, the elements that have been put together to make it up.
component	an element which with others puts together or makes up a compound; e.g., "oxygen is a component of the air."
conservation	<i>con</i> (intensive), completely+ <i>servare</i> , save=the indestructibility of matter.
crystals	<i>κρύσταλλος</i> ( <i>krystallos</i> ), ice (from <i>κρύος</i> [ <i>kruos</i> ], cold), also rock-crystal, so called because of its resemblance to ice, of which it was supposed to be a permanent form; then=a body with symmetrical internal structure.
density	<i>densus</i> , thick=the quantity of matter per unit of space.
ductile	<i>ducere</i> , to lead, draw=capable of being <i>drawn</i> into wire.
elasticity	<i>ἐλαίνειν</i> ( <i>elaunō</i> ), to drive, push=that quality of returning to an original form after <i>extension</i> or compulsion (thereby affording a <i>projectile</i> power).
element	<i>elementum</i> , a first or basic principle from (possibly) LMN =the alphabet. Thus <i>lmn</i> would have been used as <i>abc</i> , in "he hardly knows the <i>abc</i> of the business."
equivalent	<i>aequus</i> , equal+ <i>valere</i> , to be worth=having same value.
exhauster	<i>ex</i> , out+ <i>haurire</i> , to draw+an apparatus for <i>drawing</i> the gas <i>out</i> of the hydraulic main.
fusible	<i>fundere</i> , to melt=able to be <i>melting</i> .
generator	<i>generare</i> , to produce (from <i>genus</i> , kind)+ <i>tor</i> , the agent=an apparatus for <i>producing</i> something.
ignite	<i>ignis</i> , fire=to set fire to.
isolation	<i>insula</i> , island= <i>separation</i> from all other substances.
laboratory	<i>laborare</i> , to work+ <i>torium</i> , place=a place for <i>working</i> experiments.
luster	<i>lustrare</i> , to shine=the quality of shining (cf. illustrious).
magnet	<i>μάγνης</i> ( <i>magnēs</i> ), a stone of Magnesia, a district in Thessaly, where magnetic ore first came to notice.

English Word	Derivation and Definition
metal	μέταλλον ( <i>metallon</i> ), mine, from μεταλλᾶν ( <i>metallan</i> ), to search after.
metathesis	μετά ( <i>meta</i> ), over+τιθέναι ( <i>tithenai</i> ), put=transposition, exchange of places by parts of different substances.
mineral	minare, to open a mine=a substance found by <i>mining</i> , an inorganic body found in <i>natural state</i> .
opaque	opacus, shady=not transparent.
petrified	πέτρα ( <i>petra</i> ), rock+ficare, to make=turned into <i>stone</i> .
pneumatic	πνευματικός ( <i>pneumatikos</i> ), relating to air, from πνεῦμα ( <i>pneuma</i> ), air=applied to any device that depends upon <i>air pressure</i> .
refine	finire, to finish, from finis, end=to <i>finish off</i> , purify.
refractory	re, back, off+frangere, to break=resisting, stubborn; e.g., "refractory brick resists fire without <i>crumbling</i> ."
retort	re, back+torquere, to twist=a chemical apparatus so called because of its <i>shape</i> .
stability	stare, to stand+bilis, able=the property of being able to resist change; e.g., "the elements are characterized by <i>stability</i> ."
instability	in, not+stare, to stand+bilis, able=the tendency of matter to decompose or disintegrate.
substitution	sub, under, instead of+statuere, to place=the <i>replacement</i> of one kind of matter by another, one of the four kinds of chemical action.
transparent	trans, across, through+parere, to appear=having the property of allowing objects to <i>appear through</i> , of transmitting rays of light.

## II. ELEMENTS WHOSE SYMBOLS ARE DERIVED FROM THEIR LATIN NAMES

silver	Ag.= <i>argentum</i> , silver.
gold	Aur.= <i>aurum</i> , gold.
copper	Cu.= <i>cuprum</i> , copper=a metal so called by the Romans because they obtained it from the island of <i>Cyprus</i> .
iron	F.= <i>ferrum</i> , iron.
lead	Pb.= <i>plumbum</i> , lead (cf. plumber and plumb-line).

## III. OXYGEN

oxygen	ὀξύς ( <i>oxus</i> ), sharp, pungent, acid+γενής ( <i>genes</i> ), producing; an element so named because it was originally supposed to be <i>present</i> in all <i>acids</i> .
oxide	ὀξύς ( <i>oxus</i> ), sharp, acid+idum, a suffix forming the names of compounds=a <i>compound</i> of <i>oxygen</i> with another element.

English Word	Derivation and Definition
dioxide	δι ( <i>di</i> ), two+oxide=an <i>oxide</i> containing <i>two</i> atoms of <i>oxygen</i> to one of another element.
trioxide	τρι ( <i>tri</i> ), three+oxide=an oxide containing three atoms of <i>oxygen</i> to one of another element.
pentoxide	πέντε ( <i>pente</i> ), five+oxide=(cf. above).
oxidation	oxide (see above)+ation, showing action=the <i>union</i> of <i>oxygen</i> with an element burning in it.
combustion	comb for <i>com</i> (intensive), completely+ <i>ustus</i> , perf. pass. part. of <i>urere</i> , burn=a <i>burning up</i> , rapid oxidation caused by the union of oxygen with an element capable of such union.
spontaneous	<i>sponte</i> , of one's own accord, without external cause; e.g., "the <i>spontaneous</i> decomposition of certain elements"; " <i>spontaneous</i> combustion."
ozone	ὄζειν ( <i>odzein</i> ), to smell=a modified form of oxygen having a peculiar <i>odor</i> .
reduction	<i>re</i> , back+ <i>ducere</i> , to lead=the process of <i>restoring</i> a substance by removing the substances combined with it, in particular the removal of oxygen; e.g., "in oxidation the oxidizing agent undergoes <i>reduction</i> ."
phlogiston	φλογίζειν ( <i>phlogidzein</i> ), to burn, from φλόξ ( <i>phlox</i> ), flame (cf. the flower <i>phlox</i> )=an element that was formerly supposed to be present in all <i>combustible</i> substances.
inversely	<i>in</i> , to, toward+ <i>vertere</i> , turn=turned in an opposite direction (opposite of directly); e.g., "the volume of a gas is <i>inversely proportional</i> to the pressure"; i.e., the less the pressure the greater the volume.
proportional	<i>pro</i> , in accordance with+ <i>portio</i> , share (from <i>pars</i> , part)=possessing a suitable <i>share</i> of something <i>in relation</i> to some property (see <i>inversely</i> ).

## IV. HYDROGEN

hydrogen	ὑδωρ ( <i>hudōr</i> ), water+γενής ( <i>genes</i> ), producing, an element so called because it was regarded by Lavoisier as essential for <i>forming water</i> .
fermentation	<i>fervere</i> , to boil+ation, the action=the <i>agitation</i> and decomposition produced in organic substances by certain agents.
occlusion	<i>ob</i> , before, up+ <i>claudere</i> , to shut=the <i>shutting up</i> or concealing of a gas by a metal (i.e., absorption), "the <i>occlusion</i> of hydrogen by palladium."
diffusion	<i>dis</i> , apart+ <i>fundere</i> , pour, spread=the <i>spreading</i> of two liquids or gases through each other without agitation; e.g., "the rate of <i>diffusion</i> of hydrogen is four times that of oxygen."

## V. WATER

English Word	Derivation and Definition
atmosphere	ἀτμός ( <i>atmos</i> ), vapor+σφαῖρα ( <i>sphaira</i> ), sphere=the globe of air that surrounds the earth.
vapor	vapor, steam=any substance diffused in the air like steam; e.g., "water in the form of vapor is present in the atmosphere."
erosion	e, out, off+rodere, gnaw=to wear away (cf. rodent); e.g., "water is the great agent in the erosion of the soil."
evaporation	e, out+vapor, steam=the passing off of a liquid into steam or vapor.
expand	ex, out+pandere, spread=to spread out, to increase in size; e.g., "water expands upon freezing."
capillary	capillus, hair+aris, pertaining to=hair-like, applied to forces of attraction acting at minute distances.
distillation	de, down+stilla, drop=the process of vaporizing and then condensing a liquid, the latter step proceeding drop by drop; e.g., "to distil water."
diluent	pres. act. part. of diluere, from dis, apart+luere, to wash= a substance that makes another more liquid.
solvent	pres. act. part. of solvere, to loosen=a substance that can reduce another to a liquid state; e.g., "water possesses remarkable solvent powers."
dissolve	dis, apart+solvere, to loosen=to separate the particles of a solid in a liquid.
soluble	solvere, loosen+bilis, able=able to be dissolved; e.g., "oxygen is soluble in water."
solubility	solvere, to loosen+bilis, able=the property of being able to be dissolved.
solute	perf. pass. part. of solvere=that which is dissolved.
solution	solvere, to loosen=a liquid produced by transforming solid matter to a liquid state by means of a solvent.
dilute	dis, apart, away+luere, to wash=to make something more fluid by mixing it with a fluid of less consistency; e.g., "to dilute with water."
synthesis	σύν ( <i>sūn</i> ), together+τίθεναι ( <i>tithenai</i> ), place=the union or combination of different kinds of matter; e.g., "the synthesis of hydrogen and oxygen produces water."
analysis	ἀνά ( <i>ana</i> ), back+λύειν ( <i>luen</i> ), loosen=to undo or separate a compound into the elements composing it.
decomposition	de, down, back+componere, to put together=a separation of matter into its components.
electrolysis	ἤλεκτρον ( <i>electron</i> ), amber, i.e., electricity+λύσις ( <i>lusis</i> ), a loosing, separating=the decomposition of a compound by electricity.

English Word	Derivation and Definition
eudiometer	<i>εὐδῖος</i> ( <i>eudios</i> ), calm, pure (e.g., of weather) + <i>μέτρον</i> ( <i>metron</i> ), measure = an instrument originally used to test the <i>purity</i> of the <i>air</i> , now employed in the <i>analysis</i> of <i>gases</i> .
gravimeter	<i>gravis</i> , heavy + <i>metron</i> (Gr. <i>μέτρον</i> ), measure = an instrument for <i>determining</i> specific <i>gravity</i> .
gravimetric	gravimeter + ic, <i>ικος</i> ( <i>ikos</i> ), pertaining to = pertaining to <i>measurement</i> by <i>weight</i> , opposed to volumetric; e.g., "the gravimetric and volumetric composition of water is 1 part hydrogen to 8 parts oxygen."
volumeter	<i>volumen</i> , a volume + <i>μέτρον</i> ( <i>metron</i> ) = an instrument for <i>measuring</i> the <i>volume</i> of gases.
volumetric	volumeter + ic (= <i>ικος</i> [ <i>ikos</i> ], pertaining to) = pertaining to <i>measurements</i> by <i>volume</i> , opposed to gravimetric; e.g., "the volumetric composition of water is 1 volume of oxygen + 2 volumes of hydrogen."
qualitative	(analysis), <i>qualis</i> , of what sort or kind + <i>tas</i> , the abstract idea = the study of the properties of a compound to determine what the constituent elements are; in distinction from—
quantitative	(analysis), <i>quantus</i> , how much + <i>tas</i> , the abstract idea = the determination of the <i>exact amounts</i> and <i>proportions</i> of the constituents.
concentrated	<i>con</i> , together + <i>centrum</i> , center = drawn to a <i>common center</i> , drawn together, intensified; e.g., "a solution containing a large proportion of the solute is called concentrated."
effervescence	<i>ex</i> , out + <i>fervere</i> , to boil = to <i>bubble</i> and hiss spontaneously; e.g., "the rapid escape of a gas is called effervescence."
saturated	<i>satur</i> , full = <i>filled</i> with something till no more can be received; e.g., "a solution is saturated when it will dissolve no more solid."
precipitate	<i>praeceps</i> , headlong ( <i>prae</i> , before + <i>caput</i> , head) = to cause to fall <i>headlong</i> ; i.e., as a sediment; also = the sediment so deposited, as produced by a solution of camphor and water.
supersaturated	<i>super</i> , above, beyond = saturated or filled to <i>excess</i> , as in the case of certain hot concentrated solutions that lose none of the solute on cooling.
efflorescence	<i>ex</i> , out + <i>florere</i> , to flower = the formation of white <i>flower-like</i> deposits on the surface of certain bodies; also = the property by which some crystals lose their water and <i>crumble</i> when exposed to air.
anhydrous	<i>ἀν-</i> ( <i>an</i> ), not + <i>ὕδωρ</i> ( <i>hudōr</i> ), water = <i>without water</i> ; e.g., "crystals losing their water and crumbling on exposure to air are said to be dehydrated or anhydrous."



English Word	Derivation and Definition
dehydrate	<i>de</i> , down, from, away + <i>ὑδωρ</i> ( <i>hudōr</i> ), water = to deprive of water ( <i>see</i> anhydrous).
deliquescence	<i>de</i> , down, from, away + <i>liquere</i> , to become liquid = to become <i>moist</i> or <i>liquid</i> by absorption of moisture from air; e.g., "common salt because of the presence of calcium chloride often deliquesces in damp weather."
dissociate	<i>dis</i> , apart + <i>socius</i> , ally = to <i>split up</i> or decompose the elements of a substance; e.g., "a solute that is partially dissociated into ions conducts electricity."

## VI. THE ATMOSPHERE

air	<i>aēr</i> , air, from Greek <i>ἀήρ</i> ( <i>aēr</i> ), air, the <i>atmosphere</i> (one of the four elementary principles that according to Aristotle made up all substances—fire, air, water, earth).
ingredient	<i>ingrediens</i> , pres. act. part. of <i>ingredi</i> , to enter, from <i>in</i> , in + <i>gradi</i> , to walk = that which <i>enters into</i> the composition of a substance.
humidity	<i>humidus</i> , moist = the state of being moist; e.g., "when the air contains its maximum amount of moisture its humidity is said to be 100."
argon	<i>ā</i> ( <i>a</i> ), not + <i>ἔργον</i> ( <i>ergon</i> ), work = inactive, describing the chief characteristic of the element so called.
inert	<i>iners</i> , unskilled in any art, from <i>in</i> , not + <i>ars</i> , art = <i>inactive</i> , having <i>no</i> inherent powers of <i>action</i> .
helium	<i>ἥλιος</i> ( <i>helios</i> ), sun = an element first recognized by the lines of the solar spectrum.
neon	<i>νέος</i> ( <i>neos</i> ), new = the name applied to a <i>recently</i> discovered element in the air.
krypton	<i>κρυπτόν</i> ( <i>krypton</i> ), concealed = an element of the air recently discovered that has long <i>evaded</i> discovery.
xenon	<i>ξένος</i> ( <i>xenos</i> ), stranger = the name of a <i>recently discovered</i> element in the air.

## VII. NITROGEN

nitric	<i>νίτρον</i> ( <i>nitron</i> ), native soda.
nitrification	<i>nitrum</i> , niter + <i>ficare</i> , to make = the process by which the <i>nitrogen</i> of the soil is <i>oxidized</i> to nitric acid.
ammonia	a substance so called because of the supply obtained in ancient times from the vicinity of the Temple of Jupiter <i>Ammon</i> in Africa.
volatile	<i>volare</i> , to fly = <i>evaporating</i> rapidly; e.g., "ammonia is a very volatile gas."
aqua fortis	<i>aqua</i> , water; <i>fortis</i> , strong = a term formerly given to nitric acid because of its <i>strong</i> reactions.

English Word  
aqua regia

## Derivation and Definition

*aqua*, water; *regia*, royal=a term applied to a mixture of nitric and hydrochloric acid that has the power to dissolve the "noble" metals, gold and platinum.

## VIII. THEORY AND NOMENCLATURE

theory	<i>θεωρία (theōria)</i> , a seeing, a contemplation, speculation (cf. theater, from the same source=a place where one sees plays) (cf. also speculation, from <i>specere</i> , to see, as in spectacle)=an explanation of observed facts.
hypothesis	<i>ὑπόθεσις (hypothesis)</i> , from <i>ὑπό</i> , under+ <i>θέσις (thesis)</i> , a placing=that which is placed under something else; i.e., that which is assumed as a <i>basis</i> for explaining or proving something else (cf. also supposition, from <i>sub</i> , under+ <i>ponere</i> , place)=a tentative theory or supposition taken as the <i>basis</i> of further experiments.
nomenclature	<i>nomen</i> , name+ <i>calare</i> , call=a system of names; e.g., "the nomenclature of chemistry is mainly Greek."
molecule	<i>moles</i> , mass+ <i>culus</i> , little=the smallest part of a compound or element that can exist in a free state; e.g., "the smallest particle of water is a molecule which contains smaller particles still, viz., atoms of hydrogen and oxygen."
atom	<i>ἄ (a)</i> , not+ <i>τέμνειν (temnein)</i> , to cut=something that cannot be divided further=the indivisible constituent of a molecule.
symbol	<i>συμβάλλειν (symbolleîn)</i> , to throw together, come to a conclusion, conjecture, from <i>συμ-</i> ( <i>sym</i> ), together+ <i>βάλλειν (balleîn)</i> , to throw=that from which one <i>conjectures</i> or <i>concludes</i> something, an external sign (cf. conjecture from <i>con</i> , together+ <i>jacere</i> , to throw).
formula	<i>formula</i> , from <i>forma</i> , pattern+ <i>ula</i> , little=a small pattern=a <i>fixed group</i> of symbols expressing the composition of a substance.
equation	<i>aequus</i> , equal=an expression of <i>equality</i> .
factors	<i>factor</i> , maker, from <i>facere</i> , to make+ <i>tor</i> , the agent=one of the substances entering into a chemical reaction, forming the first half of a chemical equation.
product	<i>pro</i> , forth+ <i>ducere</i> , to bring=that which is brought forth from a chemical reaction, forming the second half of a chemical equation.
acid	<i>acidus</i> , sour (cf. <i>acetum</i> , vinegar)=a substance having a sour taste, applied to a group of substances that possess that characteristic.

English Word	Derivation and Definition
acetic	<i>acetum</i> , vinegar=an acid, 2 per cent of which is found in vinegar.
citric	<i>citrus</i> , citron tree=pertaining to citrons or lemons; e.g., citric acid, an acid found in large quantity in lemons.
base	<i>βᾱσις</i> ( <i>basis</i> ), bottom, foundation=a <i>foundation</i> substance which unites with an acid to form a salt.
salt	<i>sal</i> , salt=a name given to a class of substances of which common salt, sodium chloride, is the most familiar.
neutralization	<i>neuter</i> , neither (cf. neuter gender)=to combine an acid and a base in such a way that the resulting compound has <i>neither</i> base nor acid properties.
radical	<i>radix</i> , a root=a group of atoms of hydrogen and oxygen acting as a <i>unit</i> in neutralization.
valence	<i>valere</i> , to be strong=the <i>power</i> of atoms of an element to hold in combination a certain number of other atoms.
quantivalence	<i>quantus</i> , how much?+ <i>valere</i> , be strong=valence.
univalent	<i>unus</i> , one
bivalent	<i>bi-</i> , two
trivalent	<i>tri-</i> , three
quadrivalent	<i>quadri-</i> , four
quinquivalent	<i>quinque-</i> , five
monad	<i>μόνος</i> ( <i>monos</i> ), one
dyad	<i>δύω</i> ( <i>duo</i> ), two
triad	<i>τρεῖς</i> ( <i>treis</i> ), three
tetrad	<i>τέτταρος</i> ( <i>tettaros</i> ), four
pentad	<i>πέντε</i> ( <i>penle</i> ), five
empirical	<i>ἐν</i> ( <i>en</i> ), in+ <i>πειρα</i> ( <i>peira</i> ), trial=pertaining to trials or experiments; e.g., "empirical knowledge is derived from experiments."
-ous	- <i>osus</i> , full of=a suffix affixed to the name of an acid having <i>more</i> of the element and less of the oxygen; e.g., sulphurous, phosphorous.
-ic	- <i>ικος</i> ( <i>ikos</i> ), pertaining to=a suffix affixed to the name of the best-known acid of an element; e.g., sulphuric, nitric.
per-	<i>per</i> , thoroughly=indicating <i>superior</i> strength, opposed to <i>hypo-</i> ; e.g., permanganate.
hypo-	<i>ὑπό</i> ( <i>hypo</i> ), under=indicating <i>inferior</i> strength, opposed to <i>per-</i> ; e.g., hypophosphate.
hydro-	<i>ῥδωρ</i> ( <i>hudor</i> ), water=a prefix in many words meaning <i>water</i> , but in chemical compounds other than hydrogen meaning <i>hydrogen</i> , specifically applied to an acid having no oxygen; e.g., hydrochloric.

+ *valere*, to be strong=applied to elements one atom of which has the power to combine with *one, two, three, four, or five* atoms of hydrogen.

terms identical in meaning with those given above.

English Word	Derivation and Definition
monobasic	μόνος ( <i>monos</i> ), one
dibasic	δι- ( <i>di-</i> ), two
tribasic	τρι ( <i>tri-</i> ), three
polybasic	πολύ ( <i>polu</i> ), many

} applied to acids containing respectively one, two, three, or many atoms of hydrogen replaceable by a metal.

## IX. ELECTRO-CHEMISTRY

caloric	<i>calor</i> , heat=pertaining to heat.
endothermic	ἐνδον ( <i>endon</i> ), within+θέρμη ( <i>thermē</i> ), heat=taking in or absorbing heat; e.g., "an endothermic compound absorbs heat."
exothermic	ἐξω ( <i>exo</i> ), without+θέρμη ( <i>thermē</i> ), heat=letting out or liberating heat; e.g., "an exothermic compound liberates heat."
electricity	<i>electrum</i> , from ἤλεκτρον ( <i>elektron</i> ), amber=a force so named because of the susceptibility of amber to electrification.
electrification	<i>electrum</i> , amber=electricity+ficare, make, from facere, make=charging something with electricity.
electrolysis	ἤλεκτρον ( <i>elektron</i> ), amber=electricity+λύσις ( <i>lusiς</i> ), a loosing=the decomposition involved in passing an electric current through a compound.
electrolyte	ἤλεκτρον ( <i>elektron</i> )+λυτός ( <i>lutos</i> ), loosed=the substance decomposed by electricity.
electrodes	ἤλεκτρον, etc.+ὁδός ( <i>hodos</i> ), road=the two rods that conduct the electricity to and from the electrolyte.
anode	ἀνά ( <i>ana</i> ), up+ὁδός ( <i>hodos</i> ), road=the pole at which an electric current enters a positive pole.
cathode	κατά ( <i>kata</i> ), down+ὁδός ( <i>hodos</i> ), road=the pole at which a current leaves the negative pole.

## X. CARBON AND THE COMPOUNDS

carbon	<i>carbo</i> , coal=the element one form of which is coal.
amorphous	ἄ ( <i>a</i> ), not+μορφή ( <i>morphē</i> ), form=formless; e.g., "coal is an amorphous carbon."
diamond	=the same word as adamant, with changes in spelling to imitate diaphanous (transparent), from ἀδάμας ( <i>adamas</i> ), unconquerable, from ἄ ( <i>a</i> ), not+δαμᾶν ( <i>daman</i> ), to conquer=so called because of its hardness.
graphite	γράφειν ( <i>graphein</i> ), to write=a form of carbon so called because of the property of leaving a black mark on paper.
lignite	<i>lignum</i> , wood=coal in which the original form of the wood can be recognized by the eye.
bituminous	<i>bitumen</i> , various hydrocarbons; e.g., petroleum, etc., now=a form of coal containing considerable hydrogen.

English Word	Derivation and Definition
anthracite	ἄνθραξ ( <i>anthrax</i> ), charcoal=a variety of mineral coal almost pure carbon.
allotropism	ἄλλος ( <i>allos</i> ), another+τρόπος ( <i>tropos</i> ), way, form=that property of certain elements by which they exist in two or more <i>different forms</i> ; e.g., "carbon exists in the forms of the diamond, graphite, and charcoal."
kerosene	κηρός ( <i>kēros</i> ), wax, paraffine.
petroleum	πέτρα ( <i>petra</i> ), rock (cf. petrify)+oleum, oil=rock oil, an <i>oily</i> substance oozing naturally from crevices in <i>rocks</i> and obtained by boring into the rock.
ethyl (ethylene)	ether+ἔλη ( <i>hulē</i> ), matter=the hypothetical <i>radical</i> of alcohol and ether. Ethylene differs in having one less atom of hydrogen.
olefiant	oleum, oil+ficare, to make=forming oil; e.g., "ethylene is an olefiant gas."
methyl (methane)	μέθυ ( <i>methu</i> ), mead, wine+ἔλη ( <i>hulē</i> ), matter=the hypothetical <i>radical</i> of wood spirits. Methane differs in having one more atom of hydrogen.
acetyl (acetylene)	acetum, acid+ἔλη ( <i>hulē</i> ), matter=the hypothetical, univalent <i>radical</i> of acetic acid. Acetylene is composed of two atoms each of hydrogen and carbon.
cyanogen	κύανος ( <i>kuanos</i> ), dark-blue+γενής ( <i>genēs</i> ), producing=a gas composed of nitrogen and carbon, producing a purple flame.
organic	ὄργανον ( <i>organon</i> ), organ of body, from ἔργον ( <i>ergon</i> ), work=having a connection with <i>living things</i> , with bodies having <i>organs</i> ; e.g., "organic compounds"; now applied to compound of carbon.
inorganic	in, not+organic=having <i>no</i> connection with <i>living things</i> ; e.g., "inorganic or mineral compounds in the earth's crust."
ether	αἰθήρ ( <i>aithēr</i> ), the upper, purer air, as opposed to ἀήρ ( <i>aēr</i> ), the lower air=(in physics) that substance of extreme thinness supposed to be diffused through space; (in chemistry)=an extremely <i>light</i> and <i>volatile</i> liquid, used as an anaesthetic.
isomer	ἴσος ( <i>isos</i> ), equal+μέρος ( <i>meros</i> ), share=a substance that is <i>like</i> another in composition and molecular weight, but unlike in physical or chemical properties.
polymerism	πολύ ( <i>polu</i> ), many=that variety of isomerism in which the percentage composition is identical but the molecular weights different.
matamerism	μετά ( <i>meta</i> ), after+μέρος ( <i>meros</i> ), share=a form of isomerism in which substances identical in chemical composition differ in chemical properties.



English Word	Derivation and Definition
albumen	<i>albumen</i> , white of eggs, from <i>albus</i> , white=any nutritive matter like <i>white</i> of egg.
gelatine	<i>gelare</i> , to freeze (cf. congeal)=a <i>transparent hard</i> animal substance.
stearin	<i>στέαρ</i> ( <i>stear</i> ), fat=a substance so called because of its fatty constituency.
saponification	<i>sapo</i> ( <i>saponis</i> ), soap+ <i>ficare</i> , to make=the production of soap.
saccharose	<i>σάκχαρ</i> ( <i>sakchar</i> ), sugar=a general name for any crystalline sugar.
glucose	<i>γλυκίς</i> ( <i>glukus</i> ), sweet=the name of a sugar.
luminosity	<i>lumen</i> , light+ <i>osus</i> , full of=the <i>capacity</i> of a gas to give <i>light</i> .
ion	<i>ιον</i> ( <i>ion</i> ), a going, wandering=the independent particles into which the electrolyte is <i>decomposed</i> .
cation	<i>κατά</i> ( <i>kata</i> ), down+ <i>ιον</i> ( <i>ion</i> ), a going=that ion which moves <i>down</i> to the cathode.
anion	<i>ἀνά</i> ( <i>ana</i> ), up+ <i>ιον</i> ( <i>ion</i> ), a going=that ion which moves <i>up</i> to the anode.
current	pres. act. part. of <i>currere</i> , to run=a flowing, a term used in electricity although its nature is unknown and although it does not flow in one direction.
electrotypes	<i>ἤλεκτρον</i> ( <i>elektron</i> ), etc.+ <i>τύπος</i> ( <i>typos</i> ), figure, image=an exact <i>image</i> of the original objects produced by <i>electricity</i> .

## XI. HALOGENS

halogen	<i>ἅλς</i> ( <i>hals</i> ), salt+ <i>γενής</i> ( <i>genēs</i> ), producing=a term applied to a group of elements that <i>form salts</i> resembling common <i>salt</i> .
halide	<i>ἅλς</i> ( <i>hals</i> ), salt=a name applied to certain salts.
iodine	<i>ιώδης</i> ( <i>iōdēs</i> ), violet-like, from <i>ιον</i> ( <i>ion</i> ), violet+ <i>εἶδος</i> ( <i>eidōs</i> ), appearance=an element so called because of the beautiful <i>violet color</i> that its heated vapor has.
bromine	<i>βρῶμος</i> ( <i>brōmos</i> ), stench=an element so called because of its powerful <i>disagreeable odor</i> .
fluorine	<i>fluere</i> , to flow=an element so called because it is the most <i>active</i> of all the elements.
chlorine	<i>χλωρός</i> ( <i>chlōros</i> ), greenish-yellow=a gas distinguished by a <i>greenish-yellow color</i> .
muriatic	<i>muria</i> , brine=the commercial name of hydrochloric acid, so called to emphasize its relation to <i>salt</i> , sodium chloride.
nascent	pres. act. part. of <i>nasci</i> , be born=coming into being, commencing, the condition of an element the instant it is set free from a combination and is <i>just ready</i> to unite with elements for which it has affinity.

English Word	Derivation and Definition
antichlor	<i>ἀντί</i> ( <i>anti</i> ), against+chlorine=a substance used to <i>counter-act</i> the effect of chlorine.
hydrochloric	<i>ὑδωρ</i> ( <i>hudōr</i> ), water+ <i>χλωρός</i> ( <i>chlōros</i> ), greenish-yellow=a compound of hydrogen and chlorine; chlorine has a greenish-yellow color, and hydrogen is one of the chief components of water.

## XII. SPECIAL, UNUSUAL, AND ISOLATED TERMS

abrasive	<i>ab</i> , away+ <i>radere</i> , scrape=tending to wear away; e.g., "carborundum is used in whetstones because of its abrasive property."
alloy	<i>ad</i> , to+ <i>ligare</i> , to bind (cf. ligament)=a compound of two or more metals.
amalgam	<i>μαλάσσειν</i> ( <i>malassein</i> ), to soften, from <i>μαλακός</i> ( <i>malakos</i> ), soft=a compound of mercury used in extracting gold and silver.
analogous	<i>ἀνά</i> ( <i>ana</i> ), according to+ <i>λόγος</i> ( <i>logos</i> ), word, reason, ratio=according to proper proportion, <i>corresponding</i> in certain respects; e.g., "saturation is analogous to stable equilibrium."
azote	<i>ἀ</i> ( <i>a</i> ), not+ <i>ζῆν</i> ( <i>zēn</i> ), to live=a name formerly applied by Lavoisier to nitrogen because it does <i>not</i> sustain life.
apatite	<i>ἀπάτη</i> ( <i>apate</i> ), illusion, deceit=a substance so called because it has often been <i>mistaken</i> for other minerals.
arsenic	<i>ἀρσεν</i> ( <i>arsēn</i> ), male=an element originally so called because of its <i>powerful</i> qualities.
bacteria	plural of <i>bacterium</i> , from <i>βακτήριον</i> ( <i>baktērion</i> ) a little staff, diminutive of <i>βάκτρον</i> ( <i>baktron</i> ), staff, so called because of their rod-like appearance (cf. <i>bacillus</i> , a little staff, from <i>baculus</i> , staff).
barium	<i>βαρύς</i> ( <i>barus</i> ), heavy=an element so called because of its <i>high specific gravity</i> .
calcium	<i>calx</i> , lime=an element so called because its most abundant form is <i>limestone</i> .
catalysis	<i>κατά</i> ( <i>kata</i> ), down+ <i>λύειν</i> ( <i>luein</i> ), loose=the <i>decomposition</i> of a substance by contact with another change in the latter; e.g., "platinum is used as a catalytic agent in manufacturing sulphuric acid."
chromium	<i>χρῶμα</i> ( <i>chrōma</i> ), color=an element so called because most chromium compounds have decided <i>color</i> .
caustic	<i>καίειν</i> ( <i>kauein</i> ), to burn=burning, destroying; e.g., "caustic potash quickly destroys vegetable and animal tissues."

English Word	Derivation and Definition
centigrade	<i>centum</i> , one hundred + <i>gradus</i> , degree = a thermometer that divides the interval between freezing and boiling points into 100 degrees.
chalybeate	<i>χάλυψ</i> ( <i>chalyps</i> ), steel, iron = a mineral water impregnated with iron.
corrode	<i>con</i> , together + <i>rodere</i> , to gnaw to pieces = <i>eating away</i> gradually (cf. erode).
corrosive	<i>con</i> , together + <i>rodere</i> , to gnaw to pieces = <i>eating away</i> gradually (cf. erosion); e.g., "concentrated acids are corrosive."
cryolite	<i>κρύος</i> ( <i>kruos</i> ), cold, ice + <i>λίθος</i> ( <i>lithos</i> ), stone = a substance so called because it often resembles <i>clouded ice</i> .
cuprous (cupric)	<i>cuprum</i> (see copper).
cycle	<i>κύκλος</i> ( <i>kuklos</i> ), circle = a circle.
deflagration	<i>de</i> , down, out + <i>flagrare</i> , to burn = to <i>burn up rapidly</i> , as when a powerful oxidizing agent like potassium nitrate is dropped on charcoal.
eclipse	<i>ἐκλειψις</i> ( <i>ekleipsis</i> ), from <i>ἐκ</i> - ( <i>ek</i> ), out, off + <i>λείπειν</i> ( <i>leipein</i> ), to leave off, cease = the <i>cessation</i> of the light of the sun, etc., through intervention of another body.
equilibrium	<i>aequus</i> , equal + <i>libra</i> , balance = an <i>equal balance</i> .
flux	<i>fluere</i> , a flowing = a substance used to assist <i>fusion</i> .
fuming	<i>fumus</i> , smoke = giving off <i>smoke</i> or gas.
glycerine	<i>γλυκερός</i> ( <i>glukeros</i> ), sweet (cf. glucose) = a particular liquid with a <i>sweet</i> taste.
lactic	<i>lac</i> ( <i>lactis</i> ), milk = pertaining to milk; e.g., "sour milk contains lactic acid."
lithium	<i>λίθος</i> ( <i>lithos</i> ), stone = an element so called because of its <i>metallic</i> luster.
lotion	<i>lavare</i> , to wash = a washing, then = a <i>fluid</i> holding in solution various medicinal substances.
malleable	<i>malleus</i> , hammer = capable of being extended by hammering or rolled into sheets.
meteorites	<i>μετέωρον</i> ( <i>meteōron</i> ), from <i>μετά</i> ( <i>meta</i> ), beyond + <i>αείρειν</i> ( <i>aieerein</i> ), lift up = something suspended on <i>high</i> , specifically = a small body moving in space.
metalloid	<i>μέταλλον</i> ( <i>metallon</i> ) + <i>εἶδος</i> ( <i>eidōs</i> ), form = having the form of a metal.
metallurgy	<i>μέταλλον</i> ( <i>metallon</i> ) + <i>ἔργον</i> ( <i>ergon</i> ), work = the working of metals.
metastannic	<i>μετά</i> ( <i>meta</i> ), with, related to + <i>stannum</i> = an acid formed from <i>tin</i> by the addition of nitric acid.

English Word	Derivation and Definition
monoclinic	μόνος ( <i>monos</i> ), single + κλίνειν ( <i>klínein</i> ), to lean = a form of crystal characterized by three unequal axes, two of which intersect at an oblique angle while they are at right angles to the <i>third</i> .
mordant	<i>mordere</i> , to bite = a substance that has a strong affinity for a tissue to be colored and can be used to <i>fix</i> colors.
naphtha	νάφθα ( <i>naphtha</i> ), a kind of asphalt.
natrrium	through Arabic <i>natrun</i> , from νίτρον ( <i>nitron</i> ), native soda = sodium carbonate, a term furnishing the symbol Na for sodium.
orthorhombic	ὀρθός ( <i>orthos</i> ), straight + ῥόμβος ( <i>rhombos</i> ), a rhomb = a form of crystal characterized by three unequal axes intersecting at <i>right</i> angles.
permanganate	<i>per</i> , through, thoroughly, a prefix of intensity, denoting the maximum amount; e.g., "permanganate contains more manganese than a manganate."
phosphorus	φῶς ( <i>phōs</i> ), light + φέρειν ( <i>pherein</i> ), to bear = an element so called because of its property of <i>glowing</i> in moist air.
reverberatory	<i>re</i> , back + <i>verberare</i> , to beat = applied to a furnace that <i>drives back</i> or <i>directs</i> the flame upon the ore.
saleratus	<i>sal</i> , salt + <i>aer</i> , air = a term applied to baking powder because it is a <i>salt</i> which <i>aerates</i> .
silicon	<i>silex</i> ( <i>silicis</i> ), flint = an element so called because it is an essential element of <i>flint</i> and other rocks.
spectroscope	<i>spectrum</i> , an image (= a continuous band of successive prismatic colors) + σκοπεῖν ( <i>skopein</i> ), to view = an instrument with which to <i>view</i> and study a <i>spectrum</i> from any source.
stalactite	σταλαῖν ( <i>stalan</i> ), to drop = a dropping, oozing = a formation hanging from the roof produced by a constant <i>trickling down</i> of water with carbonate of lime.
stalagmite	σταλαῖν ( <i>stalan</i> ), to drop + μα ( <i>ma</i> ), the result produced = a formation <i>produced</i> upon floors of caverns by the dropping of carbonate of lime.
sublimate	<i>sublimis</i> , uplifted = a substance brought into a state of <i>vapor</i> by heat and then condensed, hence = purified. = a pure Latin word with the same meaning.
sulphur	
tensile	<i>tendere</i> , to stretch = the property of being <i>stretched out</i> .
thermal	θερμός ( <i>thermos</i> ), heat = pertaining to <i>heat</i> .
travertine	<i>Tiburatinum</i> , belonging to Tivoli or Anio = the name applied to the deposit of limestone along the course of the <i>Anio</i> and then to similar deposits in Italy.
vitriol	<i>vitreus</i> , of glass = a substance so called because of its frequently <i>glassy</i> appearance.

## OVID'S EXPERIENCE WITH LANGUAGES AT TOMI

BY HENRY S. GEHMAN  
University of Pennsylvania

In the year 9 A.D. came the clash in the gay society at Rome, and Ovid, who at the worst could only have been a confidant of the younger Julia's intrigue, was sent into exile at Tomi. Ten years before, the *Ars Amatoria* had appeared almost coincidently with the scandal of the elder Julia. It seems that Augustus had the art of dissembling his anger, and the poet appears to have had no idea of the storm that was gathering over him. In the sentence of banishment the relentless emperor mentioned the publication of the *Ars Amatoria* and probably Augustus regarded Ovid and his works as the most typical representative of that disgrace which had tainted the imperial family. Thus fell upon Ovid that dreadful punishment which he regarded as the climax of woes when he hurled imprecations against his enemy in the *Ibis* 637-38:

Denique Sarmaticas inter Geticasque sagittas  
His precor ut vivas et moriari locis.

It was hard for him, whose name always had been on the lips of the people, to live among the Bessi and Getae. We can sympathize with him when he exclaims:

Quid melius Roma?  
Scythico quid frigore peius?<sup>1</sup>

It is interesting to read his adventures on the long way to Tomi, the end of the earth. The waves ran mountain-high and seemed to touch the stars. But the land where all nature was reversed seemed to have more terrors than the sea. It lay directly under the Northern Bear and the winters were long and severe. So we rejoice with him when he welcomes the approach of spring.<sup>2</sup>

Since we are interested in Ovid's linguistic difficulties, we cannot consider all these interesting points. Tomi, which was situated about thirty-six miles from Istros or Istropolis, was a Milesian

<sup>1</sup> *Ex Ponto* i. 3. 37-38.

<sup>2</sup> *Tr.* iii. 12.



colony.<sup>1</sup> But these people who had built Greek houses among the Getae, and who were believed to be descended from a Greek city, no longer wore their Greek costume, but had assumed the Persian breeches.<sup>2</sup>

Everything was barbaric and only in a few people remained any traces of the Hellenic tongue.<sup>3</sup> The Greek speech had yielded to the Getic<sup>4</sup> and the settlers were barbarized. Ovid, in speaking of the languages of Tomi, mentions the Getic, Thracian, Sarmatian, and Scythian. He refers most frequently to the Getic, which certainly was the language spoken in that region and which belonged to the Thraco-Phrygian group. Beyond a doubt there were Bessi (a Thracian tribe), Sarmatians, and Scythians at Tomi who spoke their native tongues and were clearly distinguished from the Getae, just as at the present time the Albanians, the Servians, the Bulgarians, the Rumanians, the Turks, and the Greeks intermingle in the Balkans without losing their national characteristics. He says that he learned to speak both Getic and Sarmatian, but in many cases he probably uses these words in a general and indefinite sense for metrical reasons. It is also possible that he did not have a clear conception of the differences between these foreign tongues. Certainly, however, the Getae and their language occupied the most important part of Ovid's attention at Tomi.

Probably if the descendants of the Milesian colonists spoke Greek, they spoke it with the Thracian intonation.<sup>5</sup> But how could it be otherwise? The Greeks certainly at this time were in the minority and had to adapt themselves to circumstances. The Getae had not yet felt the refining influences of civilization; they were, according to Ovid, *Tr.* ii. 199, the last addition to the empire and were badly subdued.<sup>6</sup> The natives were repulsive to the exiled poet with their garments of skins and their long hair in the faces.<sup>7</sup> At Tomi the natives, in Ovid's opinion,<sup>8</sup> were hardly worthy of the name of men. With them might made right and they did not fear the laws.<sup>9</sup> They did not have the stern law-abiding

<sup>1</sup> *Ibid.* iii. 9. 3.

<sup>2</sup> *Ibid.* v. 10. 33-34.

<sup>3</sup> *Ibid.* v. 7. 51.

<sup>4</sup> *Ibid.* v. 2. 67.

<sup>5</sup> *Ibid.* v. 7. 52.

<sup>6</sup> *A male pacatis Getis, Ex Ponto* ii. 7. 2.

<sup>7</sup> *Tr.* v. 7. 49-50; v. 10. 32.

<sup>8</sup> *Ibid.* v. 7. 45.

<sup>9</sup> *Ibid.* v. 7. 48.

spirit of the ancient Romans, but sometimes actually came to blows in the middle of the forum.<sup>1</sup> In that land the poet did not hear recitations from books, but the sound of the bow and the clash of weapons.<sup>2</sup> Still it seems that the barbarous inhabitants of Tomi were a great deal more civilized than their savage neighbors, who frequently attacked the city. In that land where everybody carried weapons,<sup>3</sup> Ovid put on armor<sup>4</sup> when the watchman descried an inroad of the barbarians. In that wild region the ploughman held his arms in one hand and ploughed with the other, while the shepherd, with a helmet on his head, played on his pipes. It was not the wolf, but wars that the timid sheep feared.<sup>5</sup>

When the exile came to Tomi, he could not speak Getic and was not understood by anyone. No one was there that could understand his poems if he read them.<sup>6</sup> He simply could not speak with the natives.<sup>7</sup> Probably the Greeks of that section spoke such a barbarized Greek that it was a foreign language to him.<sup>8</sup> When he asked about a word, a name, or a certain place, there was no one from whom he could obtain any information.<sup>9</sup> He was a barbarian to them and had to speak by means of gestures.<sup>10</sup> The coarse Getae laughed at his Latin words<sup>11</sup> and could safely speak ill of him in his very presence. For all he knew, they could pronounce exile against him,<sup>12</sup> and no doubt he noticed threatening looks in the faces of the people who could not understand what he said. It seems that his poems were misunderstood. Some malicious interpreter,<sup>13</sup> who may have had a smattering of Latin or simply out of groundless fear used his influence among the natives, kindled the wrath of the people against him. It is quite probable that, on account of the importance of Rome and her language, somebody lived at Tomi who had a knowledge of Latin, at least the vernacular of traders. But Ovid says that among those people no one could reply in Latin.<sup>14</sup> Possibly he had met no one who could speak an intelligible Latin or perhaps (as appears the more plausible) he wants to make his misery

<sup>1</sup> *Tr.* v. 10. 44.

<sup>6</sup> *Ibid.* iii. 14. 39.

<sup>2</sup> *Ibid.* iii. 14. 38.

<sup>7</sup> *Ibid.* iii. 11. 9.

<sup>11</sup> *Ibid.* v. 10. 38.

<sup>3</sup> *Ibid.* v. 7. 15.

<sup>8</sup> *Ibid.* v. 7. 51-52.

<sup>12</sup> *Ibid.* v. 10. 40.

<sup>4</sup> *Ibid.* iv. 1. 71 ff.

<sup>9</sup> *Ibid.* iii. 14. 44-45.

<sup>13</sup> *Ex Ponto* iv. 14. 41-42.

<sup>5</sup> *Ibid.* v. 10. 24 ff.

<sup>10</sup> *Ibid.* v. 10. 36-37.

<sup>14</sup> *Tr.* v. 7. 53-54.

seem the more complete. So he would represent himself as being thoroughly isolated. He continued to write poetry, but in a new and wild country no one has leisure to read. Of course he says no one knew Latin and so he feels that his work is aimless and he says to himself:

Cui nunc haec cura laborat?  
 An mea Sauromatae scripta Getaeque legent?<sup>1</sup>

With the breaking of the ice, ships came to Tomi, and the poor exile had a gleam of hope that he might hear some news from home.<sup>2</sup> Eagerly he ran up to<sup>3</sup> a sailor, and after he had saluted him he asked his name, why and from what place he came. If the stranger could speak either Latin or Greek, he was the more welcome to Ovid.

Being in such an environment Ovid could do only one thing: he had to learn the speech of the people among whom he lived.<sup>4</sup> He is ashamed to confess that at times when he attempts to speak, words fail him and he has forgotten how to talk.<sup>5</sup> His ears are filled with Thracian and Scythian sounds<sup>6</sup> and he seems to have unlearned how to speak Latin.<sup>7</sup> He cannot use his native language in conversation with intelligent people and he quite naturally would forget many idioms. So he continually warns the reader that if any barbarisms are detected in his verses, they are not the fault of himself but of the environment.<sup>8</sup> It would be very easy to use a few Pontic expressions in his Latin since he spoke and continually heard that barbarous idiom.<sup>9</sup> Since he had no one with whom he could speak Latin and did not wish to forget his vernacular, he soliloquized and practiced the language he had no occasion to use

<sup>1</sup> *Ibid.* iv. 1. 93-94.

<sup>2</sup> *Ibid.* iii. 12. 31 ff.

<sup>3</sup> Josephus, *Antiq. Iud.* XI, v. 6, also gives an interesting example of an exile's asking news about his native land. Among the Jews that had been carried away as captives from Jerusalem was Nehemiah, who was cup-bearer to King Xerxes. As he was walking before Susa, the metropolis of the Persians, he noticed some strangers entering the city and heard that they spoke Hebrew; so he went up to them and inquired from what place they came. When they replied that they came from Judaea, he felt that interest in his home which we all have, and asked them in what condition Jerusalem and its population were.

<sup>4</sup> *Tr.* v. 12. 58; *Ex Ponto* iii. 2. 40.

<sup>5</sup> *Tr.* iii. 14. 46.

<sup>7</sup> *Ibid.* v. 12. 57.

<sup>6</sup> *Ibid.* iii. 14. 47.

<sup>8</sup> *Ibid.* iii. 1. 17-18.

<sup>9</sup> *Ibid.* iii. 1. 17-18; iii. 14. 47-50; v. 7. 55-60; *Ex Ponto* iv. 13. 17-18.

at Tomi.<sup>1</sup> Life at its best at Tomi was dull for a man who had spent his youth and prime of life in the gay Roman society. To pass away the time he would like to take up agriculture and drive the oxen under the curved yoke. He would enjoy learning the words and threats which the Getic bullocks understand.<sup>2</sup> He was so familiar with the Getic that even when he wrote Latin verse it seemed to him that he was writing in Getic measures.<sup>3</sup> If any such measures existed, they must have been found in rude folk-songs. Probably these people had their lullabies and incantations like other primitive people.

But Ovid actually wrote in Getic and adapted the barbaric words to the Roman meter. He really made an impression and won the name of poet among that barbarous people.<sup>4</sup> In his Getic work he extolled Augustus and his family, and when he had finished reading the poem to the Tomitans all moved their heads and quivers in approval and a murmur of admiration went through the crowd. Then one of the barbarians got up and said that since Ovid has spoken these things about Caesar he ought to be restored to the emperor's realm.

He had called the Tomitans almost unworthy of the name of men<sup>5</sup> and was disgusted with their barbarity. He especially hated the country and climate, but still he asserts that he loves the people.<sup>6</sup> We need not wonder that the natives became tired of his eternal complaints, and perhaps the *malus interpret* strongly loved his native land and had no sympathy with the dissatisfied and finical Roman. We are struck with surprise when Ovid pretends that he had not complained about the people:

Quilibet excutiat nostri monumenta laboris,  
Littera de vobis est mea quæstus nihil.<sup>7</sup>

No doubt when he knew the people better and received humane treatment he realized that they were good at heart, even if rough and uncouth on the exterior.

Misunderstandings naturally arose between the cultured poet and the primitive barbarians. It was a difference of viewpoint,

<sup>1</sup> *Tr.* v. 7. 61-64.

<sup>2</sup> *Ex Ponto* i. 8. 55-56.

<sup>3</sup> *Tr.* iii. 14. 18.

<sup>4</sup> *Ex Ponto* iv. 13. 19 ff.

<sup>5</sup> *Tr.* v. 7. 45.

<sup>6</sup> *Ex Ponto* iv. 14. 24.

<sup>7</sup> *Ibid.* iv. 14. 25-26.

but these disagreements probably wore off in a short time. At any rate he seems to have lived quite amicably with the people since they so patiently endured his hard fate and thus showed themselves to be truly Greeks.<sup>1</sup> No doubt things moved more smoothly when the poet knew the Pontic tongues. The Getae were not so bad after all, and friendship moved their hearts like those of other people. After he had learned the language of Tomi, Ovid probably had many interesting conversations with the natives. On one occasion when he spoke about Roman *probitas*, an old man who was born in the land of the Taurians narrated the story of Iphigenia and her escape from the Crimea.<sup>2</sup> This story was still repeated among the Scythians and proved in the old man's mind that sentiment also moved the feelings of barbarians.

Ovid certainly admired the noble traits in these rude people, and, as a matter of necessity, probably formed many friendships in the East. Still he was not happy. His servile adulations were of no avail, and he could not induce Augustus to revoke his sentence of banishment. With the succession of Tiberius, all hope was lost and he died an exile in his sixty-first year.

<sup>1</sup> *Ibid.* iv. 14. 47-48.

<sup>2</sup> *Ibid.* iii. 2. 39 ff.



## Current Events

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[Edited by Clarence W. Gleason, Volkmann School, Boston, Mass., for the territory covered by the Association of New England and the Atlantic States; Daniel W. Lothman, East High School, Cleveland, Ohio, for the Middle States, west to the Mississippi River; Walter Miller, University of Missouri, Columbia, Mo., for the Southern States; and by Frederick C. Eastman, the University of Iowa, Iowa City, Iowa, for the territory west of the Mississippi, exclusive of Louisiana and Texas. This department will present everything that is properly news—occurrences from month to month, meetings, changes in faculties, performances of various kinds, etc. All news items should be sent to the associate editors named above.]

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### California

*The Classical Association of Northern California* held its annual meeting on July 8, 1915, at the University of California, during the summer meeting of the High School Teachers Association. Dr. H. C. Nutting, of the Latin department of the university, presided at a gathering of over one hundred enthusiastic teachers of the classics. All were alive to the keynote of the session—"a man is a man before he is a farmer, a mechanic," or whatever trade or profession you will, as was set forth by Mr. Noel Garrison, one of the speakers of the day on "The Cultural and Vocational in the High-School Program." The speaker made his hearers realize that fads and fancies were in vogue even in Ovid's time, when even his hard-headed old father urged his son not to enter upon a career in which "Homer died poor!"

Mr. F. W. Thomas, a member of the Sub-committee of Ten on Ancient Languages, appointed under the general National Education Association Committee on the Revision of the High-School Curriculum, presented a very interesting report on the problem of preparing students for the reading of Caesar. Mr. Thomas suggested in his findings that the reading of Caesar be postponed until the third half-year, and in the discussion which followed, led by Dr. Deutsch, of the University of California, this contribution toward the solution of a difficult question was shown to be worthy of serious consideration. A delightful paper was presented by Miss Anna S. Cox, on "April among the Greek Mountains." Mr. Cleghorn of San Francisco gave many valuable suggestions to teachers who feel their responsibility in the work of bringing the "golden bough" of knowledge to all in the community in which they work, in order that this "golden bough" may open in some magic way the eyes of those who are blinded by a too near vision of the big dollar. Dr. Nutting suggested the possible affiliation of the three classical associations of the Pacific states, i.e., of the Classical Association of Northern California, the Classical Association of the Pacific Northwest, and the Classical Association of Southern California. The suggestion was crystallized in the form of a motion

to establish an investigating committee to consider the feasibility of the proposition. The motion was approved and the following committee was elected: Dr. H. C. Nutting, president of the Classical Association of Northern California for the year 1914-15, chairman; Professor Elmore, Leland Stanford Junior University; Mr. Nourse, San Francisco; Walter H. Graves, Oakland; Miss Dibble, San José.

The meeting was one of much mutual benefit and it is quite impossible to visualize by means of mere words the enthusiasm of those present.

The following are the newly elected officers for 1915-16: President, J. H. Humphries, Palo Alto; Vice-President, Miss Anna S. Cox, San José; Secretary-Treasurer, Miss Mary Byrd Cloyes, Berkeley (re-elected); Executive Committee, F. W. Thomas, Sacramento, Noel Garrison, Stockton.

### Colorado

*Denver.*—A program entitled *Ludi Romani Habiti a Classibus Vergilianis* was given last year by the Senior Latin class in North Side High School. The program was first given before the school, which received it with enthusiasm, and then was repeated at the Classical Section of the State Teachers' Association. The costumes were made in the manual training department, and the pupils were coached by the Latin teachers of the school. The program included two songs in Latin, a dramatic presentation of the "Schoolboy's Dream," and a Vestal Virgin Drill.

### Iowa

*University of Iowa.*—Euripides' *Iphigenia at Aulis* was presented twice at the University of Iowa toward the end of the last academic year; the first time upon the occasion of the biennial meeting of the Federated Women's Clubs of Iowa and before an audience of about fifteen hundred in Engbert Theater; the second time in City Park as one of the features of Commencement and before an audience of between two and three thousand. The open-air production was one of rare beauty. A curving hillside made a superb natural *theatron*; between the audience and the scene-building was a miniature lake, which, while not archaeologically correct, by its reflections added much to the charm of the spectacle. Miss Norma Reid Harrison, of Cleveland, Ohio, who had in previous years played the parts of Phaedra and Alcestis, took the rôle of Iphigenia and acted as coach. Professor C. H. Weller directed the performances.

Coincident with the first presentation of the *Iphigenia* the spring meeting of the Iowa State Hellenic Society was held at Iowa City.

### Mississippi

*University of Mississippi.*—On May 18 the Greek Club, with the co-operation of the department of oratory, presented the *Antigone* of Sophocles in English. The setting was severely simple in keeping with the classic

tradition and represented only the front of the king's palace, where the entire drama is enacted. The costumes were carefully studied and true to classic models. There was no curtain, and, with the exception of brief musical interludes, the action was continuous.

The interest in the play began from the first moment when Antigone appeared upon the stage, and continued without interruption until the end. The rapt attention that was given to the play throughout its entire progress was the highest sort of testimony to the ability of the youthful actors in presenting the drama. The action was carried forward with so much steadiness that one lost sight of the fact that the play was presented by amateurs. Each actor had thoroughly mastered his part, and there were no "painful silences," nor was there need for promptings.

The cast of characters was as follows: Antigone, daughter of Oedipus, Miss Clyde Scott; Ismene, her sister, Miss Annie Fulton Hume; Creon, King of Thebes, Mr. Fred S. McCorkle; Eurydice, Queen of Thebes, Miss Annie McBryde; Haemon, their son, Mr. Lester Baggett; Guard, Mr. J. Kelly Unger; Tiresias, the seer, Mr. J. N. Brown; First Messenger, Mr. W. V. Tarver; Second Messenger, Mr. J. Boyce Henderson; Chorus Leader, Mr. J. W. Buchanan; Attendants of the Queen, Miss Gladys Barry and Miss Annie L. Brown; Chorus, Attendants, etc.

### **New York**

*Hunter College, New York City.*—Miss Kate Louise Hartt and Miss Marie Widmayer have been promoted from the rank of instructor in Latin to that of assistant professor.

Dr. Jane Gray Carter has been elected censor, and Professor G. M. Whicher, president, of the New York Latin Club, an organization which includes most of the teachers of the classics in the colleges and high schools of New York City.

### **Wisconsin**

*University of Wisconsin.*—The third annual contest of the Latin League of Wisconsin Colleges was held at the University of Wisconsin, April 30, 1915. The examination questions were set by the Latin Department of the University of Michigan. Twenty candidates entered the contest, representing the six colleges in the league, viz., Beloit, Carroll, Lawrence, Milton, Milwaukee-Downer, and Ripon. Open for competition were a cash prize of \$250, three medals, two honorable mentions, and a trophy cup. The awards were made as follows:

Henry Ackley (Carroll), the Louis G. Kirchner Latin Memorial Prize of \$250 and the Wright Gold Medal.

John G. Frayne (Ripon), the Silver Medal.

Dotha Bamford (Beloit), the Bronze Medal.

Lorna Dietz (Downer), First Honorable Mention.

Mildred Silver (Lawrence), Second Honorable Mention.

Ripon College Team, the Annis Wilson Trophy Cup.

The two previous winners of the Louis G. Kirchner Latin Memorial Prize are giving a good account of themselves. Miss Helen Sawyer, of Milwaukee-Downer College, the first to win this prize, has been taking work in the Art Institute of Chicago since graduation. Miss Elsie Kopplin, of Lawrence College, who won this prize last year, is at present the holder of a scholarship in Northwestern University, Evanston, Illinois.

## Book Reviews

*The Layman Revato.* A Story of a Restless Mind in Buddhist India at the Time of Greek Influence. By EDWARD P. BUFFET. Jersey City, N.J.: Published by the author, 804 Bergen Ave., 1914. \$2.00.

The author of this book endeavors, under the guise of fiction, to depict the self-repression of the Buddhist view of life and the self-expression of the Greek ideal, and to contrast the two ethical ideals. The Occidental craves a full life, the full exercise of all the faculties of body and of mind, and the attainment of happiness by the fulfilment of desires. To Buddha this way of securing happiness is essentially fallacious; for desire begets desire in a never-ending succession and leads to "hurry of mind" and to restless, feverish motion and eventual discontent.

The hero, who is morbidly and perversely conscientious and given to the most painful kind of self-analysis, wavers between the influence of his friends the Buddhist monks and that of a Greek architect Diomedes and his charming daughter Prote. Even to the moment of his death he swings uneasily between the extremes of worldly activity and the renunciation of all such activity, and by inability to adopt vigorously either point of view leads a life of utter futility.

The scene is laid at Pātaliputta in the time of King Aśoka (third century B.C.), the Constantine of Buddhism, under whose rule Buddhism was adopted as the state religion and spread over nearly all of India. This king (who is drawn into the narrative), the consolidator of a mighty empire, is one of the most interesting figures in history and sums up in his person most of the good and bad points in the Hindu character. The story of his conversion to Buddhism and of the change which took place in his character and his view of life, as recorded in his inscriptions, forms one of the most important historical documents in the world.

The author has read widely and carefully in the Buddhist books, has tried to comprehend the workings of the minds which gave expression to such thoughts, and has succeeded admirably in vitalizing those thoughts. A reading of this book will do more to develop an understanding of the ideas which underlie Buddhism than any amount of reading of translation or descriptive accounts of Buddhism in which the personal element is lacking. In the casual reading of any serious literary work, such as one of the Buddhist books, which occupies us for a few hours in a comfortable easy chair, few of us realize the weeks and months of anxious life and thought which have gone into the making of the sentences which are so fraught with meaning. Anything that will turn us



from the verbal understanding to a comprehension of the mental processes behind the work is to be welcomed.

In criticizing such a book, which makes no pretense to accurate scholarship, it would be pedantic to pick out slight errors in the use of Pāli, to object to the contamination of passages from Greek literature and from the Buddhist canon, and to question details of historical accuracy concerning the relations of Aśoka with the Greeks.

It is to be hoped that the book will stimulate many to a reading and sympathetic understanding of the Buddhist texts themselves. The ideas in them may be rejected by us as not compatible with our occidental temperament; but they are valuable documents of human thought and have the pragmatic sanction of millions of minds, even though those minds have not succeeded in ruling the world with much practical success.

WALTER EUGENE CLARK

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*Caesar, sein Leben, seine Zeit und seine Politik bis zur Begründung seiner Monarchie. Ein Beitrag zur Geschichte und Biographie Caesars.* VON ADOLF VON MESS. Heft VII. *Das Erbe der Alten.* Leipzig: Dieterich'sche Verlagsbuchhandlung, 1913. Pp. 188. M. 4.80.

This is a strong and stimulating book. Although based upon substantial and extensive erudition, practically all philological by-play is eliminated. The drawing of the modern parallel, a characteristic and most valuable feature of this series, although occasionally somewhat obtrusive (Mollwitz, Barodino, political incapacity of the Polish nobles, Tammany Hall, England in India, etc.), serves rather for illustration than, as too frequently with Ferrero, for evidence, never warps the course of arguments, and is always illuminating. The comparison with Bismarck is often and pointedly employed, and though historical parallels are proverbially tricky, this comparison is doubtless no worse than the one commonly drawn with Napoleon, to say nothing of Mr. Froude's astounding *bêtise* anent a fanciful resemblance between Caesar and Jesus of Nazareth. Once the modern instance is not only striking but of especial interest to us. In speaking of certain irregularities while Caesar was Praetor in Spain, von Mess remarks (pp. 76 f.): "If you insist on calling this corruption, it was, at all events, in contrast with the gnawing and wasteful corruption of the East, the grandiose, creative unscrupulousness of young America, which takes wherever it finds, but in return accomplishes great things."

The most valuable portions of the book are probably the careful analysis of the ever-impending revolution; of the so-called popular party, and of the position of its leader; of the spirit and morale upon both sides during the

Gallic campaigns; and the discussion of Caesar's aims in reconstituting the state. That he purposed to found a sort of constitutional monarchy, possibly based in part upon a large council to some extent representative of the whole empire, is most plausible. Indeed, the difference between his régime and the compromises of Augustus is much more profound than commonly recognized. To call Caesar, however, "the last king of Rome" is perhaps misleading, in so far as it might suggest that there was any conscious connection with or imitation of that crude and remote condition of society. The real parallel for Caesar, the only conceivable model, was some one of the great Hellenistic monarchs.

As by far the best available single volume on a subject of wide interest to teachers in our secondary schools, the book richly deserves a translation into English.

W. A. OLDFATHER

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*The Greek Spirit.* By KATE STEPHENS. New York: Sturgis & Walton, 1914. Pp. vi+352.

After having traveled far afield for many years, Miss Stephens returns to classical themes, and essays the somewhat ambitious task of setting forth the philosophy of Greek—and pre-Greek—history from the dawn of Aegean civilization to the end of the great age of Athens. In its general outlines, the essay follows familiar lines of thought, but the reader at once perceives that the philosophy which is being set forth is peculiarly and personally the author's own, and finds the book not less interesting for its revelations of a gifted woman's ideals and enthusiasms than for the exposition of Greek thought and progress it contains. The dull pedant who trudges in the dust may find Miss Stephens' discourse over-subjective and its sentimentality a bit pronounced; he may stand aghast at the confident boldness which drags from the obscurity of the dim past the heart secrets of the Aegean and of the Homeric hero; he may find, for example, in the author's remarks on Aristophanes, reason for questioning her full understanding and appreciation of the Greek mind; he may be offended by the somewhat affected diction and sentence structure of her style. But he will perceive that she has read widely and thought deeply, and that from first to last her pen is guided by an earnest and sincere enthusiasm for a splendid subject.

GEORGE MILLER CALHOUN

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- BUTLER, H. E., AND OWEN, A. S. *Apulei Apologia Sive Pro Se De Magia Liber.* With Introduction and Commentary. Oxford: Oxford University Press. 8vo, pp. 66+208. 7s. 6d.
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- EDWARDS, G. M. *The Annals of Tacitus, Book 4.* With Introduction and Notes. (Pitt Press Series.) Cambridge: Cambridge University Press. 12mo, pp. 180. 3s. net.
- . *An English-Greek Lexicon.* New York: Putnam. Pp. 31+338. \$2.25 net.
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- FORCELLINI, A. *Lexicon totius latinitatis.* Tom. V. Onomasticon totius latinitatis. Tom. I, fasc. 5. Patavii. Leipzig: Brockhaus u. P.; Rom: M. Bretschneider. M. 3.
- HERAEUS, W. *Tacitus, Des Annalen.* Schulausg. v. A. DRAEGER. I. Bd. 2. Heft. Buch III-VI. 7., verb. Aufl. v. GYM.-PROP. WILH. HERAEUS. (S. 155-308.) 8vo, Leipzig: B. G. Teubner, 1914. M. 1.80; bound, M. 2.30.
- HODGE, C. E. *A Latin Note Book.* New York: Putnam. 12mo, pp. 8+128. \$0.50 net.
- HOSIUS, K. *Senecae, L. Annaei, opera, quae supersunt* Vol. I, fasc. 2. De beneficii libri VII. De clementia libri II. Iterum ed. Carol. Hosius. (Bibliotheca Scriptorum graecorum et romanorum Teubneriana.) Leipzig: Teubner, 1914. 8vo, pp. xxxiv+259. M. 2.60; bound, M. 3.
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